ART RECREATIONS

D21 C90
2.00
Herold L. Smith

ART RECREATIONS.

Digitized by the Internet Archive
in 2014

https://archive.org/details/artrecreations01urbi



ART RECREATIONS:

BEING

A COMPLETE GUIDE TO

PENCIL DRAWING,	MOSS WORK,	WAX WORK,
OIL PAINTING,	PAPIER MACHE,	SHELL WORK,
WATER-COLOR PAINTING,	CONE WORK,	MAGIC LANTERN,
CRAYON DRAWING AND PAINTING,	FEATHER FLOWERS,	PAPER FLOWERS,
PAINTING ON GROUND GLASS,	POTICHOMANIE,	IMITATION OF PEARL,
GRECIAN PAINTING,	LEATHER WORK,	THE AQUARIUM,
ANTIQUE PAINTING,	HAIR WORK,	SEALING-WAX PAINTING,
ORIENTAL PAINTING,	TAXIDERMY,	PANORAMA PAINTING,
SIGN PAINTING,	GILDING AND BRONZING,	COLORING PHOTOGRAPHS,
THEOREM PAINTING,	PLASTER WORK,	ENAMEL PAINTING, ETC.

BY

MADAME L. B. URBINO, PROF. HENRY DAY, AND OTHERS,

WITH VALUABLE RECEIPTS FOR PREPARING MATERIALS.

Splendidly Illustrated.

BOSTON:
J. E. TILTON AND COMPANY.
1863.

Entered, according to Act of Congress, in the year 1859, by

J. E. TILTON AND COMPANY,

In the Clerk's Office of the District Court for the District of Massachusetts.

ELECTROTYPED AT THE
BOSTON STEREOTYPE FOUNDRY.

University Press, Cambridge:
Printed by Welch, Bigelow, and Company.

RBR
JUNTL
1907

INTRODUCTORY NOTICE.

IN presenting this volume to the public, the publishers would state that it has its origin in the fact that during the time in which they have been engaged in issuing pictures and dealing in artists' materials, they have been in the constant receipt of letters, from all parts of the country, asking for information in various departments of ornamental work. It has always given them pleasure to answer such inquiries, and they will cheerfully in the future furnish such information as may be called for. But with an increasing business, and consequently more extended correspondence, they have found it impossible to meet the wants of their patrons to the extent they would wish, and therefore have prepared

this volume, which they think will be found, upon examination, to contain a great amount of valuable and original matter, in almost every department of ornamental work; and they hope the book will meet with the approbation of their patrons and the public generally, feeling assured that long experience and an honest desire to make a valuable and instructive book for teachers, amateur artists, and the family circle, will gain for it a pleasing success.

We are indebted for many of these receipts and valuable information to Professor Henry Day, a successful teacher for the past twelve years in this country, and formerly in England, Ireland, and Scotland.

NOTE TO NEW EDITION.

In issuing a new edition of this book, we feel gratified in being able to say that "ART RECREATIONS" has met with universal approval and a success beyond the most sanguine hopes of the publishers. We have, since its publication, received and introduced some new things, a natural result to our continued labors, extending business, and constant intercourse with artists and teachers. One is mentioned on page 330 of this edition.

CONTENTS.

Page.

Age and Infancy, ... 110
Anglo-Japanese Work, ... 261
Antique Painting, ... 219
Antique Varnish, To make, ... 327
Aquarium, The, ... 315

Backgrounds, Painting, ... 177
Beatrice Cenci, ... 118
Botanical Specimens, To preserve, ... 313
Bronzing, ... 230
Bronze Painting, ... 231
Brushes, Choice of, ... 163

Cabinet Work, To cleanse, ... 329
Cabinet Varnish, To make, ... 327
Chinese Raising, ... 235
Chess Table Pattern, To paint, ... 206
Colors, List of, ... 156, 188
Colors, Mixing for Grecian Painting, ... 90
Colors, Mixing for Oriental Painting, ... 203
Colored Engravings, To varnish, ... 328

Cone Work, ... 298
Crayon Drawing, ... 65, 69
Chapman's Drawing Books, ... 330

Draperies, Coloring, ... 173
Drawing, Elements of, ... 13
Drawing, Perspective, ... 31, 41
Drawing, Crayon, ... 65, 69
Drawing, Monochromatic, ... 67
Drawing Books, Chapman's, ... 330

Enamel Painting, ... 226
Evangeline, ... 117
Engravings, To stretch, for framing, ... 329
Engravings, To varnish colored, ... 328

Farm Yard, The, ... 100
Feather Flowers, ... 296
Flesh Tints, ... 168
Foliage, ... 47

Gilding Signs, ... 218
Gilding on Satin, etc., ... 237
Gilding, ... 238
Glass, Painting on, ... 211
Grecian Painting, ... 77
Ground Glass, Painting on, ... 215
Gold Size, To make, ... 328

Happy Family, The, ... 118
Hair Coloring, The, ... 170

Hair Work, ... 294
Hiawatha's Wooing, ... 95
Horn Paper, To make, ... 145

Jeanne D'Arc, ... 114
Jews-Harp Lesson, ... 121
Japanese (Anglo) Work, ... 261

Les Orphelines, ... 128
Little Bird, ... 125
Leather Work, ... 239
Leaf Impressions, Taking, ... 312

Madonna Della Scala, ... 116
Magic Lantern, ... 213
Marriage of John Alden, The, ... 105
Mastic Varnish, To make, ... 326
Monochromatic Drawing, ... 67
Moss Work, ... 291

Oil Painting, ... 51
Oriental Painting, ... 195

Painting in Oil, ... 51
Painting Panoramas, Maps, etc., ... 63
Painting, Grecian, ... 75
Painting in Water Colors, ... 129
Painting, Theorem, ... 143
Painting on Glass, ... 211
Painting Photographs, ... 151
Painting, Oriental, ... 195

Painting on Rice Paper, ... 209
Painting Signs, ... 217
Painting, Antique, ... 219
Panorama Painting, ... 63
Papier Mache, as taught by Prof. Day. 223
Papier Mache Varnish, ... 327
Paper Flowers, ... 303
Pearl, Imitation for Embroidery, ... 302
Pearling, ... 236
Potichomanie, ... 305
Pencils, Choice of, ... 163
Pictures for Grecian Painting, ... 94
Photograph Painting, ... 151
Perspective Drawing, ... 31, 41
Plaster Work, ... 285

Rice Paper Painting, ... 209
Receipts, Miscellaneous, ... 323

Sea Weeds, ... 292
Sealing Wax Work, ... 284
Scene Painting, ... 63
Sketching from Nature, ... 37
Shell Work, ... 299
Sign Painting, ... 217

Tamarind Seed Work, ... 301
Taxidermy, ... 257
Tints, Flesh, ... 168
Tints, Hair 170
Tints, for Photographs, ... 189

Tinting Glass Positives, etc., ... 181
Tinting Photographs, ... 184
Theorem Painting, ... 143
Tracing Paper, ... 325
Transparencies, To make, ... 311
Transfer Paper, To make, ... 326
Transfer on Wood, ... 262

Varnish, Spirit Sandarac, ... 325
Varnish, Transfer, ... 325
Varnish, Mastic, ... 326
Varnish, Antique, ... 327
Varnish, Cabinet, ... 327
Varnish, Turpentine, ... 327
Varnish, Papier Mache, ... 327
Varnishing Colored Engravings, ... 328

Water Color Painting, ... 129
Wax Work, ... 263

Drawing.



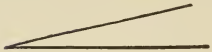
THIS art, by which we imitate the beauties of the exterior world, and transfer to paper or canvas the creations of our imagination, is not only a pleasing accomplishment, but of practical utility in every department of human life; and while, as in every branch of study, all cannot expect to attain to equal excellence, there is no one who does not possess within him a germ which, with proper cultivation,

will develop itself in some degree of artistic beauty. As in music, so in drawing, to become a master of the art requires a life-long labor and constant application; and yet it is within the reach of all to acquire such a knowledge, and such an experience, as to produce pleasing effects, to cultivate and elevate our tastes for the beautiful in nature and art, and decorate our dwellings with representations of the outer world, and make permanent with the pencil the dreamy imaginations which float in the ever-active mind.

Drawing should become an essential element in our popular education, for while it conduces to our pleasure and amusement, practical advantages naturally flow from it; and although in an elementary treatise like this it is impossible to enter into the minute details necessary for high proficiency in the art, yet it is believed the attentive student will find here an incentive for further study, and that, by following the concise but systematic directions here given, he will, although a beginner, be enabled to produce pleasing pictures with a true artistic effect, and lay the foundation for a thorough knowledge of the principles of drawing. Success in any thing is in proportion to the exertion put forth, and the student-

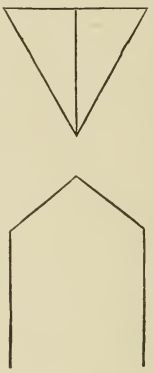
artist who, with fixedness of purpose, and with patience, applies his mind and hand to the work may feel assured of the most gratifying results; and each successive difficulty overcome, and every new idea gained, add knowledge, experience, and encouragement.

A perfect muscular control of the hand is of the first importance in drawing, as accuracy of outline and delicacy of expression can only be obtained by having the fingers in complete subjection to the will, so that the slightest volition will be properly interpreted by the pencil. This requisite facility in the use of the pencil or brush can be acquired only by patient practice, the length of time necessary for its attainment being in some degree dependent upon the natural ability, taste, or "genius" of the learner. Of equal importance, and as absolutely indispensable, is correctness of eye in determining distances and measurements — an attainment which can be carried to a wonderful degree of perfection. *Thorough practice in making straight and curved lines* demands the first attention of the beginner. *Commence with short horizontal lines*, gradually increasing the length, making the line in a distinct, bold, and rapid manner, first from left to right, and then *vice versa*, thus : ———————— ;

next, straight lines touching each other at different angles, thus:  ; then perpendicular lines, thus:



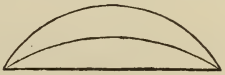
Too much practice cannot be given to these lines, and the difficulties at first experienced in drawing straight, continuous lines will gradually diminish. When these right-lines, horizontal, perpendicular, and at various angles, can be drawn with accuracy and with freedom of pencil, then practice the following, which is a combination of them all, thus:



Other combinations will suggest themselves to the inventive mind, and the learner will be astonished in his practice in finding what a variety of forms and almost endless variations can be produced from straight lines. It may be well to copy some figures composed of straight lines; but the best method is to draw from the storehouse of your

own invention, taxing the mind for new combinations, and thus adopting one of the surest means of success. The power to originate, as well as to imitate, is necessary to make the true artist.

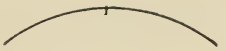
Having attained a degree of proficiency in straight lines, the next step is the *curve*, with all its variations. Commence by drawing a horizontal line, connecting the ends by arches of different altitudes, then perpendicular lines, connecting the ends by arches in the same manner.





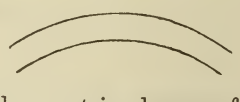
In each of these cases, the straight lines form a basis by which to determine with more accuracy the true sweep of the arch curves; and all irregular forms can best be determined by their relative positions to straight lines. A practiced eye will soon learn to detect right lines in all things, and thus have an unerring standard.

Now draw straight lines, and divide them into equal parts, testing the accuracy of your eye by the compasses, and practice this until the eye can measure with great accuracy. Then draw arches, (without any base line,) and divide them in the same manner.



Forms of grace and beauty being dependent upon curved lines, great attention and practice should be given to them in the infinite variety in which they occur. Select simple curvilinear forms, and having acquired some proficiency in making them, advance to those of a more difficult character; vases, goblets, shells, and numerous other forms combining curved lines will readily occur to the mind of the artist.

It will now be found a good practice to draw straight and curved lines with their parallels, varying the spaces between the lines until the hand becomes steady and accurate in its motion, and the eye determines the equi-distances, thus :



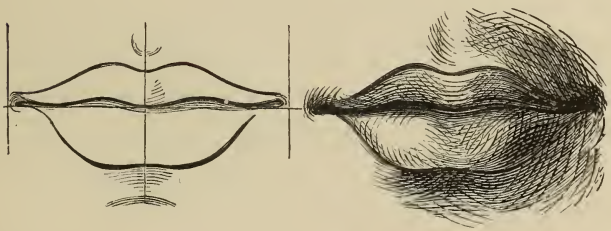
Make the lines with boldness, and a certain degree of rapidity.

Thorough practice in drawing these lines, and in dividing them at equi-distances, gives to the learner the whole alphabet of drawing. Too much attention cannot be given to the combinations of which these various lines are susceptible, and patience and diligence are indispensable requisites to success. All mistakes should be carefully

corrected, not in imagination, but in reality, as thus the hand and eye gain experience. Fruit and flowers are interesting models from which to draw, and these can be followed by more complicated subjects.

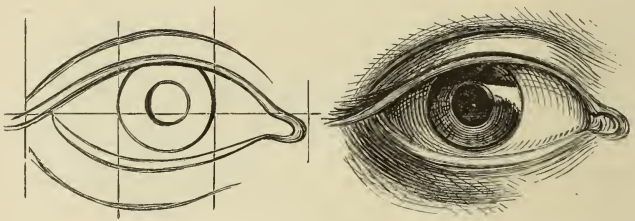
The drawing of the human head, and indeed of the whole human form, being wholly dependent upon curved lines, no more appropriate place will be found in which to give a few elementary directions on this branch of the art of drawing; and it may be remarked, that in all the works of nature no straight lines are to be found; trees, flowers, leaves, fruit, and every motion of air or water, are curvilinear in their character.

It is easier to draw a head in *profile* (side view) than in any other position, as in this way the features can be more



readily preserved, and a little practice in profile drawing (strict attention being given to the originals) will insure a

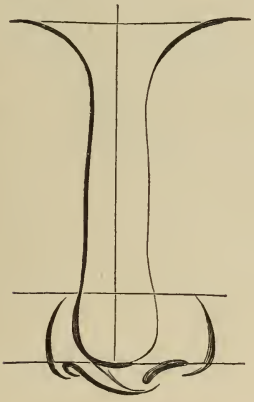
creditable degree of proficiency. In drawing a *front view*, the artist should begin with the mouth; and as a general rule, in the words of an artist-author, "before making any attempt at expression he should become familiar with the actual form of the features, and be capable of delineating them knowingly." The line made by the meeting of the lips is the first thing to be drawn. Draw a straight line, and upon it mark with a dotted or faint line the width of the mouth, center, thickness of lips, etc., giving careful attention to the form; then develop these marks into a correct outline of the form to be imitated, and the remaining steps of filling up will come in easy succession. Repeated experiments should be made until the use of the straight or base line can be dispensed with; and the same principle will apply to the drawing of the eye. Practice



will enable the learner in a short time to preserve the relative proportions as well without as with this line.

In making the lines which give form or rotundity, commence with the most prominent ones, attending carefully to all the details of light and shade, and not attempting too rapid progress. The principles above given will apply with the same force to other features, and the pupil should practice with patience each and every feature before attempting to combine them. The accompanying diagrams will be of essential service to the pupil.

Having attained some proficiency in these, the pupil can next proceed with the following, practicing patiently and thoroughly.

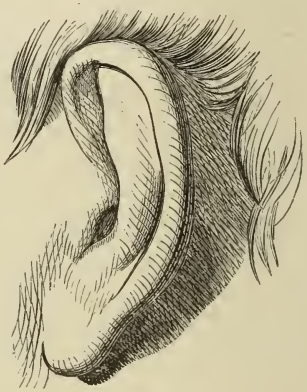




It has been remarked that it is easier to draw a *profile* than a front view; therefore it is recommended to the

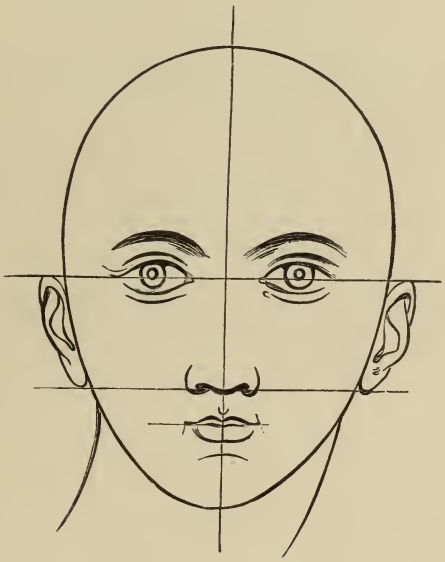
pupil to commence a perfect head with a *profile;* and here nature provides a base line or point of unerring certainty, by which to produce the head. With the head in an erect position, a line connecting the lower points of the nose and ear will be horizontal; and thus is established a basis to which all the parts of the head must have certain





fixed relations. Erect a perpendicular from one end of a horizontal line, and upon this mark the length of the nose, equal to *one fourth the whole height of the head.* This proportion will, of course, sometimes vary, but it forms a pretty accurate measurement. The *oval,* we mean the *egg-shape* oval, although of little use in profile drawing, in a full front view is of striking use and value.

The student unacquainted with the subject will be astonished to see how nearly the human face partakes of the oval form, and this knowledge, when acted upon, will be of great assistance. A single outline illustration will show better than pages of print the force of our remarks upon the oval form of the human face.

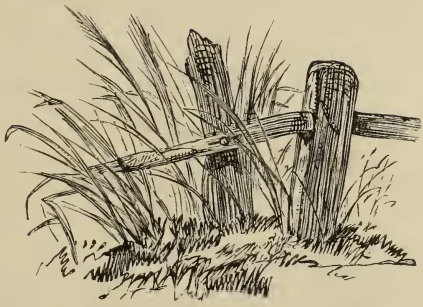


The obtuse or elongated form of the oval must be determined by the individual cases.

As a general observation, it may be said that just in proportion as the head is elevated or depressed from an erect position, the line from ear to nose, before alluded to, will cease to be horizontal, and take a greater or less curvature; still it will continue to be a governing line. Care and judgment in the use of the oval is necessary, as at every inclination of the head to the left or right, the perpendicular or center ceases to be a straight line, and as the curvature increases the line loses its position as a central line for determining the features, while the oval is gradually lost for an outline as the picture approaches a profile. The imaginary central line of the head and face should always receive the careful study and continual attention of the student, as it determines the general character of the head and its separate parts.

Copying plaster casts is an excellent practice, and the learner should improve every opportunity for observation and study; and all attempts at imitation, either from casts, living heads, or paintings, will insure gratifying progress in the art. Proper subjects for copying are within the reach of all those into whose hands this book will fall. As the pupil passes on to advance pages, he will find various directions for the minutiæ of draw-

ing, which will be of use in all his attempts to represent the human head.

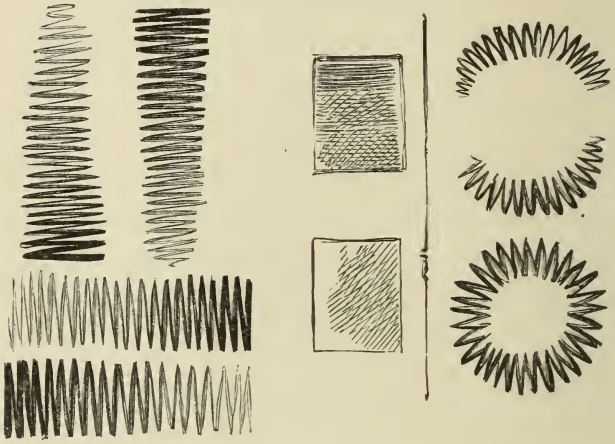


LIGHT AND SHADE.

A proper disposition of light and shade gives to drawing and painting the expression of form, and thus the eye receives nearly the same impression in looking upon the flat canvas or paper as upon the natural objects. So Ruskin remarks, in speaking of color and shading, "Every thing that you can see, in the world around you, presents itself to your eyes only as an arrangement of patches of different colors variously shaded; . . . and the first thing to be learned is, how to produce extents of smooth color, without texture." To acquire proficiency in effecting a true light and

shade, the pupil or learner must possess an accurate or a cultivated eye to aid him in giving true representations of the objects to be painted or drawn.

The variety of form and direction in nature can only be imitated by a corresponding variety in the lines and touches used in their delineation, expressing as nearly as possible the exact form and character of the original. For instance, an even, smooth surface requires an even-



ness and regularity in the lines, approaching as nearly as possible to an unbroken surface; and if it is desired to imitate a broken or uneven surface, recourse must be had to broken, curved, or uneven lines, such as

will best represent the object. It will readily be perceived by the learner that the lines (if the shading partakes of the linear character) must vary according to the subject.

The representation of a *round object* is managed by a careful disposition of the light upon the convex part, and the shade attending it. It is this difference in the shading which gives objects drawn on a plain surface their proper relief, and expresses space and distance. Indian ink, or sepia, is useful for this purpose. Prepare two, three, or more shades of either in small cups, lay on the shades with camel's hair or sable brushes, putting on the lighter shades first, and work gradually darker until the required depth of color is secured. It is better to have the shades too light than too dark, as it is very easy to strengthen shades, but difficult to lighten them. As a general rule, it must be observed that the different tones are to be so blended together as to form a gradual shade, becoming fainter as it approaches the light.

In the disposal of the shades, the following directions may be studied with benefit: —

1st. All the shades of objects in the same piece

must fall the same way, that is, farthest from the light. For instance, if the light comes from the right side of the piece, the shades must fall toward the left, and *vice versa.*

2d. The part of an object nearest the light must have the faintest shades. This rule is observable in the folds of drapery, where the projecting folds appear light, and the inner folds dark. Titian observed, that "the best rule for the distribution of lights and shadows may be drawn from an observation of a bunch of grapes."

3d. Calm waters have either a faint shade or none at all; but there should always be a line of shade near the banks. Agitated waters should have various shades.

4th. In large-extended views, as landscapes, the distant objects are faintly shaded, and the more distant they are, the fainter the shades.

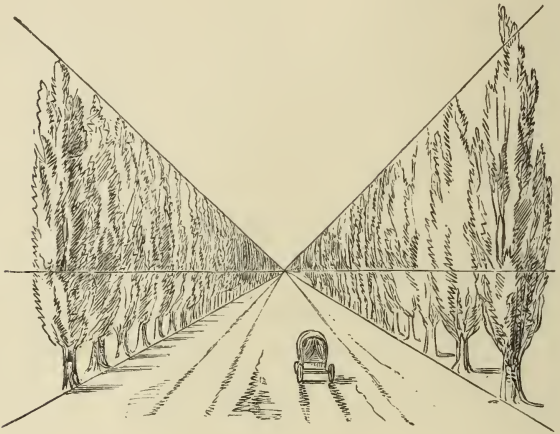
5th. With reference to the horizon and clouds, the clouds nearest the top of the piece are more strongly shaded than those more remote, the strength of shade decreasing as the clouds descend toward the horizon, where they become faint and indistinct, because at the greatest distance from the point of view.

6th. Some substances have the property of reflecting the light strongly, as satin, silk, and all polished metals. In these there must be very strong light, and consequently a deep shade. All bright lights must be contrasted with strong shades, and fainter lights with weaker shades. The examination of busts and statues is of great assistance in establishing these principles in the mind; and a critical attention to the effect of light and shade in the world around us, in the open air, or when the sunlight pours through the windows or door, or where the rays of the moon light up the evening landscape, and steal in through the opening curtains, indeed, the opportunities for studying the various phenomena of light and shade are ever present with us, and the observing pupil will in this way learn more than by pages of directions.

PERSPECTIVE.

Perspective is the art of drawing on a plain surface the true representation or appearance of any given object, as it would appear upon a pane of glass when held upright between you and the object.

The eye of a person when sketching from nature is presumed to be placed in the center of a circle of 360°, and the expanse of vision, while the eye is stationary, is an angle of 60°; in other words, the eye embraces a range of 30° on each side of a center. This angle of



60° has no reference to the length of lines on either side, since they are regulated by the assumed width of the picture proposed to be drawn; for instance, if your perspective plane be some distance from you, the objects would be larger; if nearer, the objects would be smaller — both pictures representing the same scene.

If a person standing on the sea shore look far away over the expanse of water, he will observe a boundary line — the water apparently meeting with the sky by a well-defined straight line. This is called the *horizontal line*, and it is exactly opposite the range of the eye; and that particular point of the horizontal line to which the eye of the sketcher is directed is called the *point of sight*. If he ascend to any hight on the shore, the line of the horizon must be placed higher in his drawing, because his eye is so much higher; and the axiom laid down in the previous paragraph holds true, that the horizontal line is that line exactly on a level with the eye.

Any person looking on a straight road which continues into the extreme distance, may observe that the edges of the road appear to terminate in a point. Perhaps a better illustration of this may be found on the track of a railroad, in a part where it is perfectly straight. The rails, as they recede into the distance, converge until apparently lost in a point, and at the same time appear to rise up, the extreme point being just level with the eye.

From facts like these Chapman deduces these elementary principles; that, —

"I. The point of sight must be in the center of the perspective picture.

"II. All lines parallel to an imaginary line drawn from the eye of the observer to the point of sight, must terminate or vanish in that point.

"III. The line of the horizon must necessarily rise or descend with the position of the eye, and consequently with the point of sight.

"IV. The base or ground line of the picture, and all others parallel with it, must be parallel with the line of the horizon.

"V. The diagonal of the square, perspectively represented, directs to a point on the line of the horizon, the distance from which point to the point of sight represents the true distance of the eye of the observer from the picture."

It is not too much to say that strict attention to these principles will produce the most gratifying results in the progress of the learner. One rule the true artist should always remember, that is, never to carry the point of sight *outside the picture.* The eye *naturally seeks* a point of view in the picture, and the nearer this point is to the center of the picture, the greater is the harmony between nature and art.

All objects appear to diminish in proportion to their remoteness from the eye of the spectator. Hence columns, posts, trees, etc., of equal hight, will appear to diminish as they recede from the eye. The lines which govern their diminution in perspective drawing are called *vanishing lines*, and if perpendicular to you, vanish in the point of sight, or that point in the horizon exactly opposite your eye as you stand when sketching; if the lines are below the eye, they tend upward, as the rails on the railroad; but if *above* you, as the ceiling of a long corridor, they would tend downward towards the horizon.

The point of sight may be fixed at pleasure; and although, strictly speaking, the *center* is the correct place, it is generally better to place it a little removed from the center of the picture; for if the subject were a street, or an avenue of trees, the perspective would be very formal, and the scene would thereby be diminished in interest.

Many contend that all objects appear better with one than both eyes; alleging that the sight is rendered more powerful by one eye being shut. Be this as it may, it is certain we see a piece of perspective better with one

eye than we do with both, and it is undeniable that by opening or shutting either eye the position and general appearance of an object are changed. It is this very fact that caused Sir David Brewster to reflect, and that reflection has created a new era in the history of discovery by introducing to the world the stereoscope.



SKETCHING.

Before beginning to sketch out of doors, the first consideration should be to get the best point of view, as a few steps to the right or left sometimes make a great difference, always keeping a good lookout for objects that will compose harmoniously and prettily.

As this does not always occur in natural scenes, the sketcher is allowed certain liberties; thus he may add or take away: he may add where there seems a deficiency, so that he keeps the general character of the scenery, or he may take away where it appears too crowded. Sometimes artists insist upon having the foreground entirely at their own disposal, provided they keep up the general appearance of the view. In making hasty sketches (as a pencil sketch is subject to great inconvenience when there are two or three distances, and each drawn in with one kind of mark) it is requisite to make a few written references, as the sketcher may forget the distinctions.

A celebrated English landscape painter, in giving advice to his pupils previous to their departure for a sketching tour, was very particular in impressing upon them the necessity of studying "little bits," meaning by this not to take too much in one sketch, as is too often the case with beginners. One of the best qualities of a sketch is not only to refresh the memory of the sketcher, but to be suggestive and intelligible to every one. We will suppose that a spot is selected containing not more than three or four objects. An

artist seldom, if ever, takes any thing in its broadest and most regular form, and never takes a house (for instance) as if he had taken his position directly in front, nor a row of trees or palisades at a right angle to his own position.

For an early lesson in sketching from nature, a house is very good, but must be viewed from a point a little aside from the front, so as to bring in as many angular features as possible. We will suppose a station to be selected. One way of proceeding is — hold up the sketch book in front, closing one eye in order to determine how much of the scene is to be drawn; the farther off the book is held, the less of the subject will be covered; when the extent is arranged, lower the book to a level, and make a few dots on the margin, merely to point out some of the relative positions; find the horizontal line by holding up your pencil horizontal with the eye, and slightly mark it in; then get the point of sight opposite the eye, on the horizontal line; judge well of the relative distances of the most prominent objects, and faintly mark them in on the paper. By arranging these particulars well at first, a great deal of trouble is saved in erasing false marks. Be careful to give every line

its proper position: a line that is upright in nature must be upright in your picture; lines that go direct from you (that is, perpendicular to you as you stand) go toward the point of sight; if they are above the horizontal line, they tend downward toward the point of sight; and if below, they tend upward. In sketching, it is well to have the lines a little broken, yet having the general appearance of straightness. An easy, rapid, and decided manner of sketching, so as to obviate all appearance of stiffness or formality, is a power acquired only by practice.

If the sketcher's productions after a first or second attempt be not all that can be desired, it is a fair proof that the mind is in advance of the hand, and should operate as a stimulus to further exertion. In proceeding with a sketch, the pencil gradually wears away, and gives an increasing thickness of line: this can be used to advantage, as bold lines of the pencil are frequently needed, especially in the foreground. By a little practice, the pupil will discover that by a gentle twist of the pencil, a sharp angle of the worn pencil will come in contact with the paper, and a fine line can be drawn; and by pressing harder on the pencil occasionally, an

increase of depth may be produced, giving the sketch additional spirit.

ON COMPOSITION.

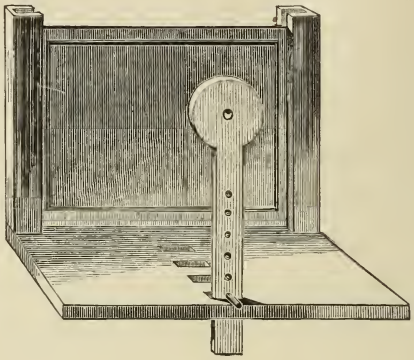
Every production of the artist is reducible to its elementary or skeleton construction of lines and forms; and upon the skillful disposition of these depend the excellence of the composition of the picture. The essential spirit of *composition* in painting, as in many other things, is *variety*. In order to make it agreeable, it is requisite that all the minor parts be so harmonized as to form one well-balanced whole, consisting of a few prominent masses or groupings, which, according to the best written treatises on the principal laws of composition, must be diversified in magnitude and in form. One of these masses should be treated as the principal, and the other as dependent upon it and contributing to it, and at the same time it is necessary they should be distinct in appearance and place. Whatever form may be determined upon, it is necessary to guard against a fixed regularity, so as not to repeat any form or shape; and whatever be the general outline of the masses, they

should not be regular, nor must we fall into error on the other side by having them too broken; but the various parts should bear and preserve a relation to each other, showing a whole so well balanced that one part cannot be taken away without the deficiency being felt.

A true Method of Drawing in Perspective without a Knowledge of the Rules.

Many persons would like to sketch from nature if they could be free from the trouble of acquiring the principles of perspective drawing. To such, and to others, we present the following description of a method in which little study is required, and yet the proportions and distances of objects will be exactly preserved. Get a large piece of fine, clear glass, fitted in a wooden frame. This frame is to slide between two cheeks or pieces of wood one and a half inches thick, which are raised at the two extremes of a board the breadth of the frame: the cheeks are grooved to receive the frame. In the middle of this board square holes must be made to receive the movable eye-hole piece, so as to be raised or lowered at pleasure. At the top of this is a circular piece of tin, three or four

inches in diameter, with a hole in the center about the size of a pea. The following drawing will give a pretty accurate idea of it, and any cabinet maker can work from it.



Place this instrument before the object you would draw, look through the little hole, and if you see all the proposed objects on the glass, the instrument is rightly fixed; otherwise, fix the sight nearer the glass in one of the other square holes, adapt the eye-piece the hight you wish, and fasten it with the pin. The eye-piece being adjusted, keep one eye at the hole, closing the other, and, with a firm and steady hand, trace in on the glass all the objects you see.

You can draw on the glass with pen and ink, then lay a moist sheet of paper on the glass, (the side that has the design,) rub or press the paper gently thereon with the hand, and the whole draught will be impressed or transferred from the glass upon the paper.

Some use a fine brush with oil color, pressing the paper on gently while the oil is wet; but we leave you to your own discretion, having given you a knowledge of the method. The sketch of a palace is as easily taken as a landscape, and a church as a house or chamber; all required in any subject being a situation where the whole object intended to be represented may be seen, and to bring the sight to a proper nearness to the glass. These drawings cannot fail to be according to the strict rules of perspective: the eye-hole has the same effect as the point of sight in the other methods.

Another method of using the same apparatus is to divide the glass into squares with threads, thus saving the marking the glass with ink or color; in this way you have your drawing marked off in the same number of squares as much larger as you wish, and proceed sketching on your paper what you see in the corresponding squares in the natural object.

To enlarge and diminish a Drawing. — Divide the original piece into a certain number of squares by perpendicular and horizontal lines, making as many in the original as in the space intended for the copy; number the corresponding squares alike, (your copy may either be larger or smaller;) then observe what parts of each square the different marks run in the original, and draw similar ones to correspond in your copy. This is the best method for enlarging and diminishing. For oil paintings, pieces of twine or thread might be tacked across at equal intervals, so as not to injure or mark the painting; or for small engravings you can procure a piece of stout card paper; cut a square in it the size of the engraving you wish to copy; divide the sides and ends into half inches; then with a needle and thread pass through the various marks from side to side and from top to bottom, taking care that the thread always comes from the same side of the card, so as to lie close to the engraving when used. Number the threads each way. If you wish to enlarge the copy, it is necessary to determine the proportions one, two, or more inches to the half inch of the thread card.

Pencil Drawing. — After having the form of an object drawn, we want it better defined; for instance,



if we wish to shade a ball, we must follow the shape, and let all the shade marks be rounded, marking dark on the side *farthest* from where the light strikes it,

working gradually fainter until the shading is lost in the spot of light; if we wish the same circle to represent a flat surface, make all the shade marks straight and even, so as to represent one shade. In this way, by studying the natural object we are drawing. the pupil will make pleasing progress.



In shading houses, trunks of trees, rocks, etc., observe which way the natural direction of lines should run, so as to best harmonize with the original, and proceed accordingly.



FOLIAGE.

When a tree is in the foreground the leaves are distinctly seen; we can readily distinguish the form, and the light and shade is in strong contrast; if we move our

position, and make the same tree appear in the middle distance, we can recognize the same tree, but the light and



shades are not so strong ; if we again remove our position,

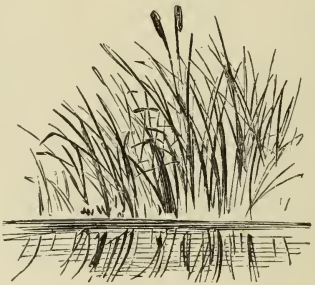
and cause the same tree to be in the extreme distance, the atmospheric perspective softens the general tone, and makes it uniform. Linear perspective gives us the cause of the diminution of size, but in addition to that we have



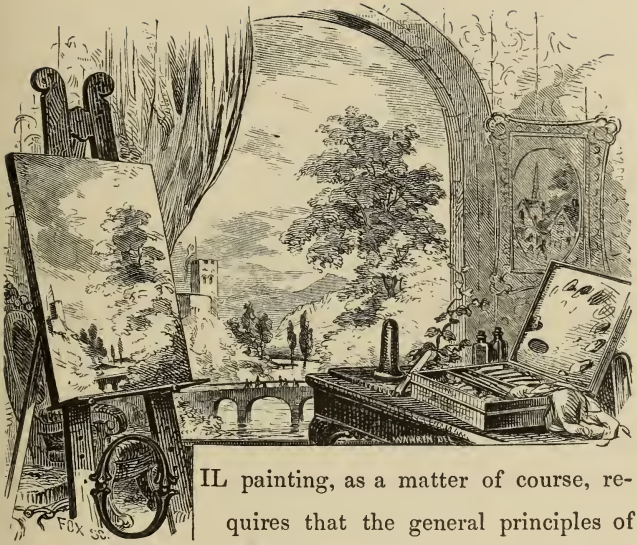
diminution of tone, a fading out as it were, owing in part to the intervention of the atmosphere. In representing this with the lead pencil, the form should be strictly observed, and an even, pale, misty tone obtained. But in

the foreground, the high lights must be strictly kept, and the shades deepened with an even gradation. We would recommend a careful study, not only of all the pencil practice we have here introduced, but of numerous others; these should be practiced well from memory, as, by so doing, ease, freedom, and facility are obtained. Masses of foliage can be represented by any of the zigzag working of the pencil; the outside form of the tree has to be studied, and the marks best adapted to it applied.

When a drawing or painting is finished, one of the best means of improving is to study it well, and do another from memory. By doing this conscientiously improvement is far more rapid.



Oil Painting.



OIL painting, as a matter of course, requires that the general principles of outline should be familiar, and that a tolerably correct sketch of ordinary subjects can be accomplished with ease and facility. We will enumerate the requisite materials for a "fitting out." They consist of colors, brushes, palette, palette knife, canvas, easel, hand-rest, oil, and varnish. A tin oil painting box can be pur-

chased complete, containing hog-hair tools, sable and badger brushes, port crayon, chalk, oil, varnish, palette, and palette knife. Hog-hair tools are made flat and round. Flat ones are generally used for the sky. The badger hair brush is used to soften or blend together the sky and other parts. Sable brushes are likewise flat and round; both are useful. After the badger has been used for softening, the ends of the hairs get clotted with paint; the cleaning of this must be attended to while the paint is wet. The better way to do this is by pressing the hairs together in one hand, and rubbing with a clean rag in the other, until all the paint is removed. Be careful that every particle of paint is removed, or your badger will be spoiled for delicate softening. It is likewise of equal importance that all the other brushes should be attended to. The best way of proceeding is, after you have done painting, wash them out in turpentine, and occasionally in warm water and soap, rubbing on the palm of the hand until the froth is colorless. Rinse the brushes out in clean, cold water to free them from soap, press all the water out, and straighten the hairs to dry. In rubbing the brushes in your hand, be careful not to rub too hard, or the hairs will be injured.

To prepare Canvas or Wood for Oil Painting. — Coat the material over with strong and warm isinglass size; when it is dry, coat it over with oil paint. Dryers may be added to the oil paint, such as litharge, sugar of lead, etc, to facilitate the drying. If a smooth surface is desired, it will be requisite to rub the surface with pumice sand and water.

Oils. — Several oils are used by artists — poppy oil, drying oil, nut oil, and linseed oil. Linseed is recommended rather than the others. Drying oil is prepared by boiling linseed oil and litharge together; it makes it much darker, but it dries more rapidly. Gold size, such as is used for bronzing, is often used as a dryer for dark colors. Sugar of lead is likewise a good dryer, and can be ground in with any color to facilitate the drying. Megilp is an indispensable article in oil painting; it serves as a good vehicle, and tempers colors to any tint requisite for glazing or scumbling. It is made with equal parts of strong mastic and clarified oil. Artists differ very much in the compounds used for drying, each one concocting a vehicle of his own, keeping it a secret, and imagining he has something superior to any one else. Our recommendation is,

to use such as you can buy: it is a very good and serviceable article. If you make it yourself, go according to the receipt given above, which will make a good, serviceable vehicle for general use. Copal varnish is sometimes used, instead of mastic.

In oil painting, as in water color painting, there are several kinds of manipulation peculiar to the different styles. Water color has its own treatment of erasing, rubbing, and wiping out, stippling, etc., while oil painting glories in glazing, scumbling, dragging, etc. Different artists have very various methods of manipulation to produce the same effect, and yet each is truthful to nature.

Explanation of Technical Terms used in Oil Painting. *Glazing.* — To glaze is to coat thinly or thickly over a portion of the picture with transparent color: if the glaze is wanted thin and pale, megilp, or oil, is added to dilute the strength of the color. Semi-transparent and opaque colors are sometimes used for glazing, but they are so diluted with megilp or oil, that they are rendered nearly transparent. With opaque colors used in this way a good representation of smoke, dust, or vapor can be produced, likewise misty and hazy

appearances. Glazing must never be attempted until the under paint is perfectly dry, or the color will mix with the glaze, and destroy all the effect you have secured.

Scumbling is a term used for *reducing* any part of a picture that is too forcibly painted. A bristle brush is best adapted for this purpose, charged sparingly with *opaque* color, of the tone you wish, drawing it lightly over the parts, so as to modify them, make them cooler, grayer, and less defined. Good distant atmospheric effects are produced by scumbling; the under color must in all cases be firm and dry, or the bristle brush will disturb it.

Handling is another term for manipulation, and means the method of working the brush to produce certain effects.

Dragging or Dry Touching. — This process is used when certain effects are wanted in the finishing. The brush, being charged with thick paint, is held loosely in the hand, and dragged over certain parts; a portion of the color sticks to the part of the picture with which the hair thus gently comes in contact.

Management of Light. — When painting at the easel, the light should come over the left shoulder; if

the light is from a side window, cover the lower part with a cloth or board. A north light is preferable to any other, because it is more uniform. After painting, the brushes should be washed, the palette well cleaned, never leaving paint on it over night. If there be more color on your palette than you like to throw away, procure some small pieces of glass, three or four inches square; put the paint on these, and place them in clean water: most of the colors will keep good for a considerable time, if immersed in water and the dust kept from them.

Look well to the blender every time it is used.

How to commence an Oil Picture. — If you are sufficiently accurate in sketching, you can with charcoal, or white crayon, make a few guiding marks; then mark in correctly with lead pencil, dusting off the crayon or charcoal as you proceed. If the subject is complicated, the better way is to make a clear, correct outline on a sheet of paper, and trace it on the canvas by means of tracing paper; then sketch it with a lead pencil. Some artists sketch with umber, diluted with oil. The canvas is now ready for the first coloring. Begin by preparing tints for the sky. As white enters into this preparation pretty extensively it is requisite to get sufficient from the

tube at once, and thin it with oil, as it is considerably too thick for use in this stage of the painting. Sky tints are composed of white, French or permanent blue, vermilion, Naples yellow, and yellow ocher. Mix them as near the tints as the subject demands. The same tints, strengthened with more color, will do for the mountains, using a little more of the yellow ocher in the mid-distance, and working gradually toward the foreground, for which mix a set of requisite tints, keeping them all separate, and painting with firmness, placing the color at once where it is to remain. In some paintings, two, three, or more sittings are requisite to complete what is called the first painting.

Second Painting. — It is requisite for the first painting to be dry before commencing the second. Prepare the palette with the required tints for the clouds, and paint them in with a little more attention to the shape, and light and shade. When done, soften with the blender. The mountains come next in order: attend more particularly to their shapes and different shades; and, as a general rule, let the early painting be of a light style of color, for in finishing the colors are cooled down by the process of glazing and scumbling. All the colors in drying sink, and will partake a little of the color upon which

they are laid. This second painting should give a good idea of the general effect of what the picture will be.

Third Painting. — A few touches of scumbling may be required to aid the effect of the distance; or a little glazing and scumbling may be wanted, to bring out certain desirable effects in the middle ground. The tints used for these purposes may be, as occasion requires, either brighter or darker than the parts to which they are applied. In this stage of the painting, do not attempt too much at one sitting, as the different glazings may interfere with each other, and destroy the transparent effect. It is much better to let the colors dry gradually, and repeat the glazing at another time.

Observations. — 1st. The sky in some pictures is very important, having an influence over the entire painting. In preparing sky tints, they are gradually more or less mixed with white. The tints are kept lighter as they approach the sun; the colors vary, but they should be produced by few. The most useful sky colors are white, French or permanent blue, vermilion, madder lake, Naples yellow, and yellow ocher.

2d. The boundary sky line, or extreme distance, varies very much in tone; sometimes distinctly seen, at others scarcely distinguished from the horizontal tones. Suita-

ble colors must be selected to paint in these effects. Distant mountains will sometimes have their summits quite visible, and their bases, although much nearer, not seen; this is occasioned by mists and vapors. To obtain this effect, scumbling must be resorted to.

3d. If it be possible, paint in the distance while the sky is moist, with the same tints, only stronger, as the case may be. If time will not allow, scumble over the lower part of the sky at the next painting. This method is sometimes attended with better effect than the other.

4th. As the objects advance toward the foreground, a little more distinctness of color may be given. Accidental touches of light give important aid by separating the foliage, and different objects through the picture, from distance to foreground. Such colors as terre verte, Indian red, Venetian red, Antwerp blue, emerald green, and raw sienna, may be added to the colors already enumerated. Emerald green may be objected to by some artists; to such we would recommend to try with vermilion or one of the bright reds, and judge for themselves. The grays produced by these two colors can be varied with a little Vandyke brown, or Naples yellow.

5th. Trees form an important item in general landscape.

The color and shape should be attended to, and the disposition of the branches carefully studied. Pencil in the foliage against the sky, and all the extreme parts, neatly with a small brush.

6th. In working up foregrounds, do not elaborate them with a pre-raphaelite minuteness, or it might interfere with the rest of the picture. The landscape is not intended to be painted with botanical accuracy; nor, on the other hand, should you be too broad, coarse, and careless, but finish with a general harmonious keeping of the whole.

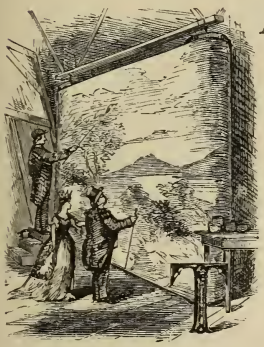
7th. The distance must, to a certain degree, melt into the horizon, so as to know where ethereal finishes, and where solidity begins; the mid-distance should be made out more clearly, and particular attention should be paid to the details of the foreground.

8th. It is well to have a glass slab, about seven or eight inches square, in addition to your wooden palette, on which to rub colors, as it is requisite to have some colors in powder — a few that are seldom used. On the glass slab they can be mixed or ground when occasion requires.

Figures. — Figure drawing is an indispensable accessory in landscape painting. For the study of the

human figure, there is no better way than the study of feet, hands, heads, etc., from casts. The introduction of figures in landscape serve not only to enliven and break the monotony of some passages, but it serves as a relative measurement — a scale whereby we can form ideas of the real size of objects. The hight of an average figure is eight times that of its head. This division can easily be remembered. If a perpendicular line is drawn, allow half of it for the lower portion of the body, and half for the upper — from shoulder to shoulder two heads wide.

Hints about Panorama, Map, and Scene Painting.



TAKE strong cloth (sail cloth or canvas) of the requisite dimensions, and stretch it on a frame; coat it thoroughly with parchment size, and when dry apply a coating of common slaked lime, or of chalk with some size with it: when dry it is ready for the design. The colors used for this kind of

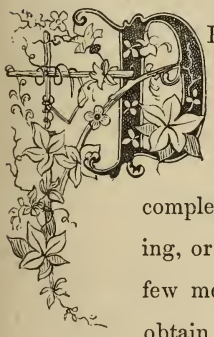
painting are mostly the common paints — chalk, (carbonate of lime,) vermilion, the two siennas, the two umbers, black, Prussian blue, all the ochers, Brunswick green, emerald green, all the chromes, mineral red, and the lakes. They are mixed with a size made of isinglass, glue, or parchment: bristle brushes of various sizes are mostly used. For extra brilliant effects, leaf silver, Dutch metal, and silver foil are stuck on with oil size in the same manner as for gilding, (See *Gilding*.) This kind of painting is now called "distemper painting." A bowl should be had for each color, likewise a brush. The tints should appear a little darker when mixed than what you want them to be, as they dry lighter: wash the brushes in warm water when you wish to clean them.

If the designs require to be painted in oil, the canvas is prepared with the parchment size in the same way; then coat over twice with oil paint, white, then a pearly white. When dry, proceed as with an oil painting.

It should be remembered, in all paintings of this character, that fine and delicate touchings are not necessary; indeed they are not suitable in any way, as they detract

from the boldness of the picture, deadening the sharpness of outline, and giving a tame effect to the whole painting. These pictures are intended to be looked at from a distance, and consequently the lines must be bold, and the contrasts of light and shade very apparent. To obtain these absolutely indispensable requisites requires practice; and the pupil will notice that those parts which look harsh and coarse when closely examined, are the very portions which give character to the picture when viewed from an appropriate distance. All panorama and scene painting is based on this principle. These remarks are equally applicable to any object which is to be placed at a distance from, or elevated above, the beholder.

Crayon Drawing.



RAWING in crayon is much easier of execution than oil painting. One advantage over oil and water color is the facility with which a drawing can be completed; this is manifest in out-door sketching, or upon any subject of which you wish a few memoranda, and have but little time to obtain them. The advantage of working with

dry material does away with the tediousness of waiting the drying of oil or water color. Crayon or pastels are put up in boxes of assorted tints for portraits or landscapes, and by the blending of these every kind of shade and color can be obtained, as in oil painting. Get dry colors, grind them very fine in water, add any of the following gums, dissolved in water: gum arabic, gum tragacanth, honey water, sugar candy water; a portion of this is added merely to bind the color: some colors require a little more than others. If too much gum is put in, they will be hard, and not rub off so readily. Gradations of tint are made by adding chalk or plaster to the color; for instance, we will select carmine; add two parts of chalk to one of carmine, and call that one tint; add three parts chalk to one of carmine — call that another; add five parts chalk to one of carmine — call that another; and so with all the colors, in any number of tints to suit yourself. In order to form the color into crayons, press it and roll it out the size you wish; place it upon absorbent paper, — white blotting paper is the best, — and let them dry gradually.

Crayon Papers. — Almost any kind of paper may be used by being previously rubbed with cuttle fish, (if

it have a very smooth surface;) but there are papers manufactured especially for crayon painting and these have the advantage of greatly assisting and facilitating the progress by readily receiving the crayon.

A good paper for portraiture is pumice paper. The paper is prepared with a coat of starch, or isinglass, put over the surface while warm, after which it is dashed all over equally with fine pumice sand. Panels of wood, mill-boards, and canvas can be prepared in the same way. The pupil is recommended to study the designs in pencil drawing; many of the principles there illustrated are of equal use in this.

Directions for Monochromatic Drawing.—Take pasteboard or drawing paper of good quality, size with isinglass, or paint with pure white lead. When this has been thoroughly dried, smooth it well with sandpaper, and paint again perfectly smooth; while this coat is yet hardly dry, sift upon it pulverized white marble, through fine muslin. Marble can be easily pulverized after burning it. When dry, shake off the loose particles. (The process is rather tedious, and requires care, especially in the marbling. The paper all prepared can be had of the publishers of this book, or at any artist-supply store.)

If you wish a tinted surface, add color to the white paint.

You will need for this painting a knife or eraser, crayons, fine sponge, pencils, cork, rubber, piece of kid, and crayon holders. Fold several pieces of kid and soft leather, and use in shading the sharp folded corners; also double some pieces over the ends of pointed and rounded sticks; the learner will find use for several kinds. Always commence painting with the dark shades, and blend gradually into the light. For very dark shades, rub the crayon directly upon the surface with a light hand, and blend off carefully.

Paint the sky first as in water colors. It is well to shade distant mountains *very light* at first, and be sure to have the edges soft and faint.

For water, scrape some black crayon into a powder, and lay it on your board with the kid, working it horizontally, and making the lights and shades stronger as it comes nearer. Your sponge may do good in rendering the water transparent. Make sharp lights with the penknife.

Ruins overgrown with moss, and dilapidated buildings, make pretty pictures. We have seen moonlight

views, in this style of painting, more beautiful than any thing else.

Great care must be taken to do the foliage *well;* many a picture, which would have been good otherwise, has been spoiled by a stiff, ugly tree. By a delicate use of the round point of a penknife, beautiful effects can be produced in the crayon shading.

Figures, animals, etc., are put in last, and a person knowing how to shade in pencil will find no difficulty in this.

COLORED CRAYON. — The monochromatic board is very good for this kind of painting.

Sometimes we make a strong frame of the size of the picture which we intend to paint, and upon this we stretch three thicknesses of paper; then size or paint it, and sift marble dust equally over every part while wet. When dry, the superfluous particles are blown or dusted off.

If you use the monochromatic board, it will be well for you to transfer your picture, as in papier mache painting. If you stretch your paper on a frame, draw the picture on the paper, and shade it nicely with Indian ink (water color) before sizing or painting it.

For a group of fruit and flowers, first arrange the natural ones and study the effect. For a head, we consider the drapery and groundwork; and here allow us to advise all persons to study penciling before attempting this kind of painting; also, to begin by painting simple and easy things. To those who absolutely wish a colored picture, and have little ability to draw it, we recommend that they stretch a nice engraving landscape or head on the frame, at the outset, and prepare it with the sizing and sand. This gives a good foundation.

The picture being drawn, proceed to fill in the background, not of one uniform tint, but varying in shade and color according to the picture; for example, if the lights in your picture are on the right side, the darkest shade in the groundwork must be placed on the right side, and *vice versa*. See that the background be smooth, the dark shades of rich brown or green, and the light of gray, French blue, etc.; then, —

1st. Paint the dark shades of your picture with black crayon, and rub it in with a soft cork. The cork pencils ready prepared are best for that purpose, or rubbers of soft leather will answer.

2d. Put in the light, clear shades, as they belong, with the soft and medium crayons, using the utmost care in blending with the cork, (or leather,) to avoid a dingy and dirty appearance.

3d. Lay on the browns and other dark colors. Where it is necessary to put brown over black, or to blend it in with it, do not rub the two together; use your finger, as well as the cork.

4th. Finish the picture with the hard crayon, laying on in lines and blending with the cork.

Having a variety of colors for other styles of painting, we leave you to use your judgment in selecting from your boxes. You must have *a box of soft* and *a box of hard crayons*, from which to obtain what you need.

Always try the colors on a bit of waste paper.

Do not expect to have just the right thing by simply laying on the colors *once;* you must work line over line very carefully, and many times. The artist must exercise great care that the picture does not become soiled in the delicate parts.

In addition to the colors you find in your boxes, furnish yourself with black and white crayons of different tones, and a good supply of carmine. We prefer the

lump to the pencil. French blue is much used to produce clear lights.

Colored crayons are well adapted for landscape drawing, and for this a harder crayon than that used for portraiture is preferable. The most useful colors are *white*, (white Italian chalk,) *straw color* and *light yellow*, (pale and middle, deepening to sober full yellows of the yellow and and brown ocher hues.) *Blue*, (bright azure tints of varied strength, pale and dark.) *Gray*, (pale and deep, of blue, neutral, and warm tones.) *Reds*, (vermilion tints, pale and middle, Indian red.) *Blacks*, (Nos. 1, 2, and 3.) The paper must be of some available tint, as its color appears through almost all portions of the work; a low-toned olive tint has been found very available. Having the paper an inch or two larger than the proposed picture, sketch the design *lightly* with the black crayon No. 1, making sky and broad tints with the flat surface of broken pieces of crayon, (1 and 2,) rubbed in with the finger; the breadths of the nearer and remote distances are laid in with pieces of broken crayon blended and worked together. The mountains, trees, rocks, etc., are drawn in with black crayons, and then appropriately tinted and glazed with the colored crayons.

METHOD OF FIXING CRAYON DRAWINGS BY STEAM. — Crayon drawings are more likely than any other kind to become disfigured and defaced, if handled carelessly. A method of preserving them is highly spoken of by those who practice this branch. Get a tin vessel with a tight-fitting lid, and a pipe projecting from the side of the vessel, five or six inches long, with a small head perforated with numerous holes, similar to a common watering can; into this vessel put two ounces of the strongest alcohol, and two drams of powdered sugar candy. Boil it over a spirit lamp; the steam which issues from the pipe must be directed to the back of your picture, until the paper and colors are perfectly saturated.

TO PRESERVE PENCIL DRAWINGS. — Best alcohol, two ounces; camphor, four grains. When dissolved it is ready for use. If the drawing is on ordinary drawing paper, the solution can be coated on the back of the drawing, and the paper will readily absorb sufficient of the liquid to hold the lead pencil. If the drawing is on Bristol board, it will be necessary to coat it over rapidly on the drawing side; or, what is better, put the solution in a shallow dish, and slip the draw-

ing through; see that the liquid has been all over it; then stick a pin through one corner, and let it hang up perpendicularly to dry. Another way is, to use weak skim milk, and immerse your drawing in that, drying it in the same manner as before.

Grecian Painting.



PROCURE a light pine frame, a trifle larger than the engraving; (this need not be of the nicest workmanship; simply four pieces of wood nailed together, to act as a support to the picture while painting;) then moisten your engraving with water, and while wet, paste it to the frame; dry slowly, not over a fire, and it will become quite smooth and tight; now moisten again, *on the wrong side*, with pure spirits of turpentine, and

while wet, with a coat of Grecian varnish on the same side, which continue to apply, (keeping it damp only, not too wet, or it will filter through in spots,) *until it is wholly transparent*, and without spots. If it is found difficult to remove the spots, apply the second coat of spirits, and afterward the Grecian varnish. When ready to paint, the back will have an even gloss all over it. When perfectly clear, it should remain two or three days before painting, which is done on the side that you have varnished, the shading of the engraving serving the same purpose in painting; this process is so simple that a child able to read this can easily understand it. Each picture we publish for these arts has complete and special rules how to paint and how to mix colors for each part, etc. A list of our pictures will be found at the close of this article.

All materials used can be had of the publishers at the lowest prices; also, a new and choice assortment of small, cheap, trial engravings, which will make desirable pictures when completed; Grecian varnish of the best quality, in bottles at 25, 37½, and 50 cents each; Winsor & Newton's fine English oil tube paints. Five colors are needed, and more might be used to advantage; those

actually needed are flake white, ivory black, permanent blue, deep chrome, Chinese vermilion. Yellow ocher, Indian red, emerald green, Vandyke brown, raw and burnt sienna, the lakes and some others, can be used to advantage, although from the five first mentioned almost any shade of color can be made. For flesh color, white, a trifle blue and vermilion; for the cheeks, rub through a little vermilion with the finger, after painting with the flesh color; for other shades, see special directions furnished with our pictures, as mentioned above. A flat varnish brush is also needed, price from 18 to 25 cents; two or three paint brushes, (sable hair are best with long handles, costing 12½ cents each;) a little spirits of turpentine; a rag to wipe your brushes; a bottle of bleached drying oil, 17 cents; Outside varnish, 17 cents; this last must be put on very thin, after your picture is dry, on the face, with a stiff brush; then frame close without a glass. Boxes of materials for Grecian and Antique painting cost $2, $3, $4, and $5, according to the number of articles contained.

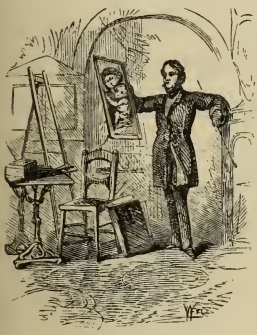
DIRECTIONS FOR GRECIAN VARNISH. — Three ounces fir balsam, two ounces fourth proof alcohol, (none but the best will cut the balsam.) Mix well, and add one ounce pure spirits of turpentine.

How to frame a Picture after it is painted. — Let it remain in the frame in which it is first stretched till it is fully dry and hard; then cut it out carefully and frame, taking care that it be not cut too small or too large. If too small, the back board will not hold it in well; if too large, it touches against the side in parts, and causes it to wrinkle. To have it just right, lay it upon a flat surface and the frame on it, and mark the size with a sharp point, and then cut evenly. If, after all your care, it should wrinkle in time, take it out of the frame and make another stretcher or frame of wood, (as first directed to stretch the picture on, only stronger perhaps,) that will just fit your gilt frame; then take a piece of strong cotton cloth, one or two inches larger than the picture all round, and paste the back of the picture and the cloth; after pasting let both stand a few minutes to become pliable, then lay the one on the other, pasted sides together, and rub evenly till well fastened; now tack with small nails or lace tacks tightly to the frame; place the frame against some smooth surface, and secure it, while drying, with larger nails driven through the frame, after making suitable holes. It will dry smooth and tight if properly done.

Varnish the picture *but once* on the face, after it is

framed, (not before,) with Outside varnish; this must be put on evenly, and with care that it does not run; have but little in the brush at a time. Grecian varnish should be of the best materials; if you cannot get ours, make it by our rules, and see that the ingredients are of the first quality and unmixed.

Professor Day's Method.



HIS style of painting, lately introduced into this country, has already gained for itself a wide circle of patrons, owing to the readiness with which it is acquired. This and Oriental painting have run a pretty even race — the latter glorying in a gorgeous array of brilliant colors, with sparkling aids, the former of a more sombre and antique appearance. Grecian painting is not a new style with an old name, as some think, but an old style with probably a fanciful name; for I can well remember doing it in England when a boy, and hearing old artists say that they did the same

thing in their boyhood. This method of painting is more satisfactory to mediocre painters than any other style as the difference between a good artist and an inferior one is not so readily distinguished. It admits of all classes of painters, from the beginner to the finished artist; the veriest tyro producing a pleasing picture with a little care, at the same time advancing a step in the study of color. Many celebrated artists do not hesitate to avail themselves of the Grecian style, by commencing the picture, (after being finished in the Grecian method,) as if it were only in the dead color for a highly-finished picture; shading and manipulating with the various tints in opaque color, glazing and painting, scumbling and painting again until the desired effect is obtained. When finished highly in this way by an experienced artist, it is very difficult to tell it from an exquisite picture on copper. I was introduced, many years ago, to a gentleman in Scotland, who had a very valuable collection of modern and ancient paintings. After looking through several well-stocked rooms, he said he had one (a gem) in reserve for me — an original by Raphael, a portrait of La Fornarina. I looked at it, knowing that it was not the size of the original, although it was painted beautifully; all the glowing tints of nature

so carefully handled that not a brush mark was visible. After looking at it some time, I thought it *might* be a carefully-painted engraving done in the Grecian style, and mentioned the same to the owner, who seemed very indignant at my plebeian opinion of one of his choicest pictures. I took the painting out of the frame, and, convinced of the truth of my conjecture, explained to him the *modus operandi* of Grecian painting, and then tore up a corner of the paper to satisfy him that I was right. Of course, he was very much astonished, and seemed hardly to thank me for detecting the cheat, and opening his eyes to the fact. The painting was beautifully done, and neatly pasted on canvas. After leaving his house, I thought I had hardly done right in exposing his pet original, for it was a good painting, and he considered it invaluable; but the mischief was done and it was too late for remedy. In the course of a few weeks after the unfortunate *exposé*, I accidentally met with his *valet de chambre*, who, in conversation, informed me that La Fornarina was deposed from her choice locality in the drawing-room, and was at present suffering in an obscure corner in the housekeeper's room; but the butler, who had an eye for beauty, had offered it a prominent place in his sitting-room. So I

presume La Fornarina ever after had her eye on the butler. Pardon this digression, but it is a true occurrence, and proves pretty conclusively that even a lover of art and a connoisseur may be deceived with a painted engraving.

DIRECTIONS. — 1st. Procure a pine frame about an inch in thickness and half an inch in width, the inside to measure exactly the size of the engraving.

2d. Place the frame upon the engraving, and mark round the outside with a lead pencil; cut down the paper with scissors to the pencil line.

3d. Choose the best side of your pine frame, and coat it over with thick paste.

4th. Place your engraving, face down, on a piece of clean white paper upon a table; saturate your engraving thoroughly with a sponge wet with clean water; press your pasted side of the frame firmly down upon the picture; then turn it over, and press gently with the flat of your hand, so as to have it stick evidently all round the edge of the frame, and then leave it till entirely dry.

5th. Pour on your Grecian varnish, and rub it in with a bristle brush; repeat this four or five times at intervals of ten or fifteen minutes.

6th. When thoroughly transparent, place it where it

will be free from dust for a week or so, to allow it to dry; it will then be ready for painting.

Observations. — 1st. Great care must be taken with the pasting, so as to have it perfectly secure, as many good engravings have been spoiled by inattention to this stage of the process. In our practice we find it a more certain way to place a damp piece of paper on the middle part of the picture, so as to keep the paper moist until the pasted edges of the paper are sufficiently dry to resist the contraction of the paper.

2d. The engraving while moist hangs loosely, but as it dries (it should always be allowed to dry gradually) it becomes quite tight; this is owing to the expansion and contraction of moist and dry paper. When thoroughly dry, it is ready for varnishing. Saturate it well the first time with the varnish; in about ten minutes the paper will probably absorb nearly all of it: then saturate it a second time. Look at it again in fifteen minutes, and if dull parts are to be seen, apply more varnish. This process of varnishing must be repeated until it all shines, and is completely transparent. Look at it the next day, and if any white spots are visible, apply a coating of turpentine.

Treatment of White Spots. — One of the greatest difficulties with which artists in Grecian painting have to contend is the breaking out of white spots after the picture has been carefully varnished; it has been facetiously termed the "*white spot plague*," and is certainly as great an eyesore to Grecian painters as any plague spots to the world at large. None but the initiated can imagine the chagrin felt by the artist, after, as he imagines, carefully and thoroughly varnishing a choice picture, making it look as transparent as clear water, and placing it snugly away in a corner free from dust, with a full belief that all is safe, on taking it up some subsequent day for painting, to find that the plague spots have appeared perhaps across the face and neck of a beautiful young lady, or may be on the lips of a sleeping babe, or on the knee of a warrior, threatening to lame him for life, or making a distressing attack on the eye of a coquette, depriving her of her magnetic charms. All these, and many, many more have we been subject to in the course of picture clearing. The great panacea for these white plague spots is "*turpentine*." If rubbed on the back of the picture soon after they make their appearance, the dis-

aster is soon remedied; but if allowed to remain for weeks or months, it is very difficult. We invariably proceed as follows: If the spots come out a day or two after varnishing, coat the picture on the back with clear turpentine, and let it remain half an hour; if the spots do not disappear in that time, repeat the process; at the end of another half hour, or an hour, if they have not disappeared, and the turpentine is evaporated, apply still more: the spots are sure to yield sooner or later. When they have disappeared, and the turpentine has all evaporated, or nearly so, apply one more generous coat of varnish, and leave it; in all probability, white spots will never again mar the picture. In cases where the cleared picture has remained several months before being discovered, much greater perseverance is required. We proceed then by placing the picture near the fire, face down, so that a moderate heat will act upon it: apply the turpentine, the action of which is facilitated by the heat. The design of this process is to soften the varnish, then weaken it, and by this means penetrate the paper. These stubborn cases require much time and perseverance; but if you feel disposed to bestow the time and trouble, the spots are sure to disappear. In

all our experience we never have had one failure; indeed, if this treatment is persevered in, failure is out of the question. The Grecian painter will, doubtless, think that this is considerable trouble. We echo the thought, and say, yes, it is considerable trouble, as we can fully testify, having had some smart pupils, whose pictures we have been obliged to keep in a continual turpentine bath for a couple of days; and we fancy we hear more than one shrewd observer, desirous of avoiding it if possible, ask if there is any way of avoiding it. We answer, yes; the appearance of the white spots is caused by not applying as much varnish as the paper will absorb. The picture should be well watched during the varnishing, and as soon as the dull parts appear, more varnish should be applied, for those are just the places where white spots would make their appearance if allowed to remain. The varnishing should be continued until the whole picture has a glassy appearance. On the other hand, care must be observed not to get on too much varnish; for by running into this extreme upon some warm day, when Fahrenheit indicates about 100° in the shade, the colors will be apt to float from their places, owing to the softening of the gummy varnish. On some

pictures white spots will sometimes appear, with their crystallized radiations, when such pictures have been painted two or three years. The spots in this stage require a very different treatment, and more artistic skill is requisite. The part affected must be matched very exactly with opaque color, the precise tint, and stippled in on the right side with a small brush; this is the only treatment for white spots starting after the painting is finished.

Articles desirable for Grecian Painting.— Palette, palette knife, one inch flat bristle brush, one inch flat varnish brush, (we use two different brushes; one we keep entirely for the Grecian varnish, the other for varnishing over the front with mastic varnish when finished,) three sized sable brushes, (one miniature size.) Grecian varnish, mastic varnish, (or Outside varnish,) spirits of turpentine, drying and nut oil.—*Colors.* Flake white, Naples yellow, raw and burnt umbers, Indian red, Venetian red, vermilion, rose madder, crimson lake, Vandyke brown, raw and burnt sienna, Italian pink, chrome yellow, deep chrome, yellow ocher, ivory black, verdigris, emerald green, Prussian or Antwerp blue, cobalt or permanent blue, and megilp.

We will give a few general hints for mixing various tints, without reference to any particular picture. They will always be found useful. *Flesh tints*, white, Naples yellow and a little vermilion; sometimes for children, white and a very little vermilion; for old age, (weather-beaten,) Indian red and white. *Light hair*, raw umber and white; these two colors will give all the shades of light and dark brown hair. *Flaxen hair*, raw sienna and white. *Golden hair*, raw sienna, white, and a little burnt sienna. *Distant mountains*, permanent blue, Naples yellow, and Venetian red. *Nearer ones*, use yellow ocher instead of Naples yellow. *Mid-distances*, the same, sometimes allowing the yellow ocher and blue to predominate. *Distant foliage*, yellow ocher, deep chrome, Antwerp blue, and a little Venetian red. *Near foliage*, chrome and Antwerp blue, with a little white; very bright foliage, emerald green, chrome yellow, and a little white. *Brown foliage*, burnt sienna, deep chrome, and Antwerp blue; Vandyke brown, substituted for brown sienna, will make another. *Grays*, white and a little ivory black; another, Naples yellow, permanent blue, and a little vermilion. *Pink*, rose madder, and white; for *crimson*, vermilion; for *deep maroon*, use

Indian red. *Buff*, Naples yellow; *warmer buff*, white and a little deep chrome. *Orange*, chrome yellow and vermilion. *Blue eyes*, permanent blue and white. *Hazel*, Naples yellow and a little raw umber; these tints are all for the *back of the picture; the front* is treated differently. Any part that is required to be brighter must be glazed over with transparent color; for instance, a *bright red garment* or *flower* is coated with vermilion on the back side, and crimson lake, diluted a little with megilp, on the right side. *Pink, dress* or *flower*, paint with rose madder and white, on the wrong side, and glazed over on the front with rose madder. *Blue dresses* or *flowers*, paint on the back with Antwerp blue and white, and finish on the front with blue and megilp. *All dresses* or *flowers*, of the yellow class, are finished on the front with burnt sienna, weakened with megilp. *Brown hair*, with vandyke brown. *Lips*, with vermilion and white on the wrong side, and vermilion and megilp on the right. For *purple*, mix vermilion, Antwerp blue, and white, for the back color, and finish on the front with crimson lake and blue.

Observations. — 1st. All colors used for the back of

the picture must be opaque; the opaque colors used are, white, black, raw and burnt umber, chromes, Naples yellow, Indian red, vermilion. The transparent colors are, both siennas, crimson lake, rose madder, Italian pink, Prussian or Antwerp blue, Vandyke brown and verdigris. As a general rule, the *transparent* color that is mixed with white for the back color, is the transparent color that must be used for the front, diluted with megilp, to suit the required strength of tint; this stands good in all cases, except yellows; these various shades of yellow we invariably tint on the front with burnt sienna and megilp. The transparent color for foliage is Italian pink, and a little Antwerp blue.

2d. In tinting on the front side, we invariably use megilp with the color, in preference to oil. If we wish to highten any part still more, we use a touch of opaque very sparingly; for instance, if we want a reddish brown dress, inclining to a deep crimson, we coat the back with fine Indian red, and the front with crimson lake; and if we wish to bring out a few high lights, we add a little of the Indian red; if too strong, subdue it with some megilp.

3d. In painting faces, paint a spot of pure vermilion

on the cheeks, and the rest of the face (omitting the eyes and lips) with flesh tint; then, with the end of your finger, blend in the vermilion (working your finger round) with the flesh tint; this must be done carefully. Look occasionally on the front side, to see if the tints are blending evenly, and in the right place of the cheek; if this part is done satisfactorily, the beautiful roseate tinge on the cheek is made much softer than in any other way. Foliage tints, mountains, and clouds can be manipulated in the same way.

4th. Water is generally the reflected color of the sky, unless something intervenes to overshadow it; in that case, make the back tint with verdigris, Vandyke brown, and a little yellow ocher; glaze with verdigris and Vandyke brown on the front. If any light ripples are introduced, use Naples yellow very sparingly with the same.

5th. Sometimes, when painting on the back, the color, after standing a day or so, separates into small fissures or cracks. This is caused by the varnish not being thoroughly dry; it is of no consequence, and is only mentioned here to satisfy the fears of some. To remedy it, coat it over again at a later stage of the painting, when it is drier.

When the painting is entirely finished, let it remain a week or so, till thoroughly dry; then give it an even coat of mastic or outside varnish; let the painting lie flat down until the varnish is quite dry, or it is liable to run in streaks. The picture is then ready for framing, and should be allowed to remain on the stretching frame, as it keeps smooth and firm. The rabbet of the frame should be made wide enough to admit the full size of your picture, stretching frame included.

PICTURES FOR GRECIAN PAINTING. — Two difficulties have been met with by nearly all artists in Grecian painting, one in finding pictures suitable or well adapted for this style, and the other, in "clearing" the paper on which engravings are usually printed. The publishers of this book have endeavored to obviate these difficulties, by issuing pictures in the highest style of the lithographic art, from acknowledged classic subjects, and printed upon paper prepared expressly for Grecian painting. Accompanying each picture are full directions for painting every part, so

that the beginner, or the artist who may distrust his own taste, will meet with no trouble in securing a pleasing picture. We would not have it understood that other pictures cannot be cleared; they can; but while they will have the appearance of *painted engravings*, the pictures here noticed will, when painted, closely resemble *oil paintings*. Of course the independent painter will use his or her own discretion and taste in coloring, and may, or may not, follow the printed rules; still, they serve as a great assistance to young artists. To the list of pictures which follows the publishers are constantly adding new ones, and will always take pleasure in giving any information desired concerning them.

The pictures already published expressly for Grecian painting (and they are the only publishers for this style) are,

Hiawatha's Wooing. The subject of this picture is from Longfellow's beautiful poem, *The Song of Hiawatha*, and has been, and is now, one of the most popular lithographs ever issued. The size of the plate is fourteen by eighteen inches. Price, $1.50.

Directions for Painting Hiawatha's Wooing, Grecian Style. — *Minnehaha.* Eyes, use burnt sienna,

with a little white for pupils. Mix with white a trifle of sienna, for the whites; for the hair, use burnt or raw umber, slightly shaded with white on the light part; make the band on her hair permanent blue; improve by slightly touching on the outside with the same, blue and white. Flesh color, mostly white, a little yellow ocher, less vermilion, a trifle blue. After painting the flesh color, rub a little vermilion, with the tip of the finger, through the paint on the cheek; this will give a slight and healthy flush which cannot be made with a brush; while so using the vermilion, look to the face of the picture to see that the color does not spread too far toward the eye or nose; under the eye, the chin, and near the nose, the light flesh color should be preserved. Improve by lightly touching the lips with vermilion mixed with white, on the outside. Ear-rings and bracelets, deep chrome; improve by touching on the outside with Naples yellow. The string of beads about the neck, a touch with the smallest brush on the outside, of light blue and white alternately. The necklace in the same way, filling in with vermilion, white, and varied shades of blue, in slight drops, as small as possible, to represent beads. The plate in the center, same

as the ear-rings. The drapery on her shoulder and the part below the waist has a fine effect as ermine; white with a few black spots, at proper distances, by touching on the outside with the same. The part from the necklace to the waist leave white; can improve with slightly touching on the outside. Make the sash or belt about the same colors as necklace, but imitate quill-work instead of beads, similar to the Indian work of quills and beads frequently seen on bags, etc. Make the dress light blue; have the mat she is plaiting straw color; use raw sienna; improve by touching on the outside with the same and Naples yellow.

Hiawatha.—Eyes; pupils, burnt sienna, the whites tint with same. Flesh color, the same as for Minnehaha, a shade darker; treat the cheeks and lips as directed for Minnehaha. Make his hunting frock purple, (blue and lake or madder,) trimmings permanent blue, tipped with white, except the belt and border of the frock, which may be worked with beads, (blue, white, and black;) line the sleeves with lake, tipped with deep chrome on the outside. Make the necklace front with quills and beads of vermilion, white and lake; the fringe deep chrome, white and blue; his leggins, Naples

yellow, trimmed with blue, tipped with white; moccasins, a lead color, (black and white;) trim with yellow beads, a band of vermilion and black; his head-dress of "eagle feathers," emerald green, vermilion and deep chrome; "the red deer" upon his shoulder, burnt and raw sienna; touch outside on lightest parts with raw sienna and Naples yellow, and the tongue and nostrils with vermilion softened with white.

The Old Arrow Maker. — Eyes, dark; flesh color, same as Hiawatha, but darker, more vermilion, and ocher, and blue; beads, same as described for the other figures; his leggins, Naples yellow and black, trim with blue, white and black on the outside; moccasins, Naples yellow, trim with yellow and black; the frock about his waist, purple; the cloak he sits upon, vermilion; touch on the outside with rose madder, vermilion and white; the skin thrown over the bushes at his back, paint raw sienna and deep chrome; the wigwam, "made of deer skins dressed and whitened," paint white; the water falls, white, tinted with blue, touch on the outside, the spray with white; the rocks, raw sienna and blue, to make a warm green; the vine near the wigwam paint emerald green, touched on the outside with Naples yellow,

yellow ocher and blue, in light shades; the rest of the foliage make green, of deep chrome, antique blue, raw sienna, in different shades, not to have a sameness; the whole a soft, warm color, not a deep bluish tint. Have the light parts near the opening more yellow of course than the thick, deep, rich forest; touch up on the outside with the same green, softened with raw sienna and yellow ocher. The distant foliage, and beyond the distant river, should be very light green, of a whitish tint. The several pine trees should be painted a darker green, with black touches, with a few lighter touches on the outside. A few bright flowers, touches of deep chrome, vermilion, and white, in the lower corners, among the rich foliage, will be a great improvement; also the same about the rocks, by the "Falls of Minnehaha." A pretty natural flower is made with the point of the smallest brush, of lake, and with the same brush cleaned, touches of white, at equal distances around the lake color, forming white leaves and giving a fine effect; drooping clusters of vermilion have also excellent effect, shooting from the large leaves. The sky should not be touched until two or three days after painting the other, to allow *it to dry;* it should then

be put on the back with a large brush: begin at the top with permanent blue and white, soften down to the horizon nearly white, and with the tip of the finger rub through light fleecy clouds of white. Let the picture harden a week, then rub a coat of gum size over it, (Arabic or common mucilage;) *when dry*, varnish with our Outside varnish, in thin coats, after framing.

The painting of the above can be much more simple and varied, and finished without the touches on the outside; but these colors will be found pleasing, and quite easy to follow.

"Hiawatha's Wooing," so painted, passes readily for an oil painting of great beauty; and framed, sells readily for ten or fifteen dollars. Suitable frames can be had of us at from one dollar and fifty cents to four dollars.

THE FARM YARD. — A beautiful copy from the original, painted by J. Herring. Size of plate, thirteen by nineteen inches. Price, $1.50. The Farm Yard is intended as a companion to the beautiful engraving of Hiawatha's Wooing, above described.

DIRECTIONS FOR PAINTING THE FARM YARD, GRECIAN STYLE. — *The Maid* should have blue eyes. Use

permanent blue and white. Let them be quite light; also, tint the whites with blue. The flesh color is made of white, a trifle of vermilion, a little Naples yellow, and a particle of blue. After painting the flesh color, (the forehead and neck, as in most figures, should be lightest,) rub with the tip of the finger, through the paint on the cheek, a little vermilion, which will produce a natural effect that cannot be made with the brush. While doing this, look to the face, to see the vermilion does not spread too much. (See description for painting Minnehaha, in the picture of the Wooing.) Her hair should be painted raw sienna; the head-dress white, light blue trimmings; her sack, or loose gown, make light blue; touch in the neck, and on the sleeves next to the flesh, with white. The skirt tucked up, make vermilion on the back side, and rose madder on the front: make her ear-rings Naples yellow.

The Young Farmer. — The flesh make a shade darker than that of the maid; his hat, deep chrome, touched on the front with Naples yellow; his collar, white; the neck-tie, vermilion; his coat, emerald green; pants, Naples yellow, with a little black; the leggins, a bright red, as the neck-tie and the maid's skirt. Use

for the rake, raw sienna and yellow ocher; touch on the front with Naples yellow; make the fence he leans upon the same; touch the outside with Naples yellow and yellow ocher. The milk pail, use Naples yellow, with a little vermilion; the hoops, black; use white to preserve the shade; touch on the front with white and black.

The Dog. — Use Vandyke brown, Indian red, and white, mixed for the darker parts. The white part, use white; touch on the front with white, the tip of his nose, paws, etc.

The Cow, against which the maid is leaning. Use yellow ocher and white mixed; rub Indian red lightened with white through on the darker places; her horns, white; tip with white; touch her horns, her nose-tip, the white in the eye, on the front with the white.

The other Cow. — Paint as shown in the engraving. The white part, white; the dark part, the Indian red and white used in the first cow; touch the tip of her horns and nose, as in the other, with white; also, touch with white where the red meets the white on the front.

The Donkey. — Make his belly, the back part of his fore legs, and nose, white: for the rest, use yellow lake, with a little black.

The White Horse have wholly white; the shading in the engraving will make sufficient variety.

The Dark Horse. — The lower parts of his hind legs, the right front fore one and face, have white; the rest, paint Indian red.

The Horses in the background, white.

The Swine. — Paint white, yellow lake, and a little black, mixed. Touch the darker spots with dark paint of the same mixture; also, touch a little on the front.

The Fowls. — Paint a few white. Tint the others with yellow ocher, sienna, etc. Make their combs and gills red. Use vermilion and crimson lake, mixed, on the front. The cock, use deep chrome, emerald green, and vermilion, on the back; touch up with the same on the front. The ducks, make a white breast; their backs, a blue-black, with a ring of white and red about the neck.

The Barn. — Paint yellow ocher, Naples yellow, and a little Indian red, mixed. Touch up in the edges of the boards, outside, with Naples yellow; the thatch, yellow ocher, chrome green, Indian red, raw sienna, in variety, so as to present a monotonous appearance; rub it in with the finger, one shade through another; put in the light colors first, and rub the others through.

The Farm House in the distance should be painted white, slightly tinted with Indian red. Paint the chimney the same. The thatch, a very light yellow green, made of white, Naples yellow, and a particle blue; the trees of a hazy, bluish-green color; almost white, for the distance *must be preserved.* Therefore, have both the house and trees a very light shade of color, scarcely colored. Have the same care to get the animals in the distance very light color. Touch the breasts of the ducks in the distance with white on the front, slightly.

The Roof over the Well. — Paint the same as the barn. The woodwork, make wood color, as the barn. Touch on the front with Naples yellow, as directed for the fence the man leans against. The milking stool, paint burned sienna and white, touched up on the outside.

The Cottage near, have, with the exception of the thatch, white. The casting around the window, paint Naples yellow. The chimney, as directed for the other house.

After this work is dry, the next day, or next but one after would be better, paint the foreground in the following manner: —

Make the water a light blue. Touch on the front the

lights with white. The rocks near, use raw sienna; for the rest, use Naples yellow, yellow ocher, chrome green, Indian red, and chrome yellow; rub and mix on the picture with the finger, one through the other, to give a variety. After the whole is thoroughly dry, paint the sky, commencing at the horizon with a pale yellow of Naples yellow and white, mixing in blue and white as you go higher. Then with the finger rub through white fleecy clouds, looking at the front to see the effect.

After the picture is framed and dry, varnish as before directed, and it may be touched upon the face to give effect as you please.

This picture, painted as above, is a magnificent thing; in fact, really the best for effect yet published, and will sell for twenty or twenty-five dollars, framed.

The Marriage of John Alden, in the Courtship of Miles Standish. This celebrated picture is from a splendid design made for us by the distinguished artist, F. O. C. Darley, the original of which is in our possession. This is considered Darley's masterpiece; and no picture, to our knowledge, has elicited such general admiration. The size of the plate is fourteen by seventeen inches, and the retail price $1.50. It looks well

done in Grecian style, with the following colors, although the artist can vary the coloring to suit his own taste.

The Beautiful Maiden Priscilla. — For the face, mix white, a bit of vermilion, and the least particle each of Naples yellow and permanent blue ; after having painted the lips, vermilion mixed with white ; to give a little flush on the cheek, rub with the tip of the little finger, through the flesh color, a little stronger vermilion, being careful that it does not spread too near the nose and eyes. This process is fully shown in directions to our other pictures. Paint the hair with yellow ocher, touching it lightly on the face of the picture with the same color. Paint the hat light blue, and the wreath emerald green, touching separately the tips of the leaves where they are light. Paint the ruff white, also the stomacher and cuff. The dress should be a very delicate blue or violet; if blue, very light with white; if violet, very light blue, with a particle of madder or scarlet lake; touch on the face of the picture with the same color on the lightest parts, particularly the light parts of the folds of the dress. The gloves, Naples yellow.

John Alden. — The pupil of the eye delicate blue, with the spot on the pupil pure white; the white of the eye

tinted a trifle with blue. For the flesh, the colors given for Priscilla, except rather more of Naples yellow, treating the cheeks as directed for Priscilla. For the hair, mix Vandyke brown and raw sienna, with a particle of white in the lightest parts; mustache the same. The coat, crimson, or madder lake; collar, white; breeches, purple, made of crimson lake and blue, lightened with white, touching the light parts and folds delicately on the face of the picture with the same color; cuff, white, and hand same color as the face; sword belt, Naples yellow, touching up the lights on the face of the picture; sword hilt, deep chrome, touching the white parts very carefully with Naples yellow; the legs, white; the shoes, white, shaded a little darker with black when darker in the print, touching on the whites a little on the face; the hat, Naples yellow, touching the tip of the light parts with the same outside.

The White Steer must be all white, and it will shade itself properly, touching the eyelashes, tips of the eyes, and other prominent lights, in the most delicate manner on the face; the wreath, different shades of autumnal leaves, Indian red and chrome green, yellow ocher and green, variously mixed and shaded; touch delicately on the outside.

Miles Standish. — Use the same flesh color as before mentioned, darkened with raw sienna; mustache, raw sienna; helmet white, and collar white; the belt, Naples yellow; the armor, steel color made of white, tinted a trifle with black.

The Indian Boy leading the steer. For his face, mix Indian red and white, very light, stronger of red on the lips; the eyes, pupils, Vandyke brown, whites, white. The coat, raw sienna and white; collar, white; breeches, vermilion on the back, madder on the face; his legs are brown, lighter than the face; the ring in the nose of the steer, white; the rope, Naples yellow, touched on the face on the light parts.

The Horse used by Miles Standish, paint with a mixture of yellow ocher and white, the white predominating; the bridle, Naples yellow. Touch as already directed on the face of the picture.

The Brook. — Use white slightly tinted with blue, touching the lights with white, particularly near the shore where the water touches the rocks, etc.

The Trunks of the Trees. — Mix Vandyke brown and raw sienna in different proportions, preserving the distances by making the light places lighter; the figures

in the distance paint in distinct colors, light, to suit the fancy, coloring similarly to the prominent figures.

When this is dry, paint the foliage different shades of green, using chrome green, raw sienna mixed with chrome green and white, also with Naples yellow, having every variety of these colors blended; in the foreground use the same colors with Indian red, lightened with white. The trunks of trees, branches, and lights in the prominent leaves, may be touched up on the lights with the same, being careful to preserve the distances by keeping the light parts light, and to do the foliage well on both sides in order to give a graceful effect, as much of the success of the picture depends upon the manner in which the beauty of the foliage is preserved. Paint the banks with the same mixture of greens, rubbing with the finger one color through another. The stones in the brook paint with a mixture of white, yellow ocher, and a trifle of black; mostly white will give a good stone color. Also, rub a little of the foliage color through, in spots, to give a warm, mossy appearance to them. Touch the grass in the foreground (each spire separately) on the front very delicately with a light green, made so with white.

Frame when done, as shown in our directions with Age and Infancy.

AGE AND INFANCY. — This is a beautiful and pleasing picture for Grecian or antique painting, from a noted German original, representing the extremes of happy age and happy childhood. Size, sixteen by twenty-two inches, and retail price, $2.00.

DIRECTIONS FOR PAINTING. *The Old Gentleman.* — Have his face rather a pale flesh color, made by mixing white, a trifle vermilion, and Naples yellow; give him a faint flush, which the little exercise of amusing the children would give, by rubbing a particle of vermilion through the other color with the tip of the finger, as shown in the directions for painting our other pictures: Happy Family, Hiawatha's Wooing, etc. Have his hands the same flesh color, darkened a trifle with Vandyke brown; his hair white, tinted with Naples yellow; his wristbands, and bosom, and collar white, with the paper in his hand; paint his coat a very light drab, made with white slightly shaded with yellow ocher and red; his waistcoat paint crimson lake; have his pantaloons a very delicate blue; the chair deep chrome, touched on the front slightly on the lights with the same

colors used on the back, as directed in our other pictures.

The Child climbing the back of his Chair. — Paint a light flesh color, her face a little more rosy than the old gentleman's; her arms and hands the same, a little browner; her dress, deep chrome, trimmings white; the bonnet, light blue, lined with Naples yellow; her hair, raw sienna; eyes, blue.

The Mother, who is Spinning. — Have her flesh color, as usual, a mixture of white, a little vermilion, trifle blue; put the flush on the cheek with the tip of the finger, as usual; have her eyes light blue; lips, touch on the outside a trifle with crimson lake; her hair, raw umber; her skirt, vermilion on the back, crimson lake or rose madder on the front; the loose jacket have Naples yellow mixed with a little orange chrome, the figures light blue; touch the figures on the front with the blue, lightly; have the lining white.

The Spinning Wheel. — Paint wood color; use mixed yellow ocher and a little burnt umber; touch the lights a trifle with the same (a little lightened with white) on the face; paint the flax white, mixed with a trifle Naples yellow.

The two little Children playing Horses. — The first, paint her apron white, her dress light blue, white trimmings, white stockings; have her flesh color rosy, the same as that of the little girl climbing her grandfather's chair; the hair, yellow ocher and raw sienna, darkened if you please. The next, little boy, paint his frock vermilion on the back side, on the front rose madder or crimson lake, a thin coat; his waist white, striped with blue; paint his flesh as the others, varying the tint a trifle; the hair a little darker.

The Boy Driver. — Paint his frock Naples yellow; his neck-tie Naples yellow and orange chrome, mixed; his stockings, a mixture of white and blue; his hat, white; touch all carefully on the face on the light parts with same colors used on the back, except when others are mentioned.

The Father at the Door of the Cottage. — Paint his neck-tie white; his coat, raw sienna and white mixed; his vest, purple, made of crimson lake and blue; his pipe white.

The Cottage. — Paint the woodwork a little lighter color than the spinning wheel; mix white with that color; paint the plaster white, tinted a trifle with black,

to make a slight gray tint; have the thatch chrome green and yellow, as directed in the Farm Yard; the vine over the door, varied green; shade some of the leaves a little different, with chrome green and chrome; the glass, white; the flower pots, Indian red, mixed with white; have the tiles front of the cottage same as the flower pots, only a shade lighter; use more white.

The cage, paint deep chrome. The trees, paint as directed in the directions for Hiawatha's Wooing, which also give rules to mix colors and to paint the ground. Be very careful that you preserve the distances well, by painting the most distant part the lightest; the tops of the distant trees, use chrome green mixed with white and chrome yellow; those nearest, use blue and deep chrome mixed, and chrome green darker; also rub in with the finger lighter colors in the darker places, and darker shades through the lighter places, to give a variety; for the trunks of the trees, mix raw sienna, Vandyke brown and chrome green, preserving the shades; paint the light parts a lighter shade of the same; touch the whole on the outside as before directed, carefully. The ground, vary and mix, rubbing colors through colors with the tip of the finger, till you

have it look right; use the same colors you use for the trees; vary a little in mixing as you put it on; the ground and sky should be left some days, till the other is dry, before painting. Paint the flowers light straw color, crimson lake and white, not mixed, but each different. Use your own taste in dressing the children's baby. The dog paint white, and raw umber. The basket, Naples yellow.

This picture is larger than the others, and when well done makes a delightful painting; framed, should be worth twenty-five dollars.

JEANNE D'ARC. — No picture is more popular than this, and it will always be a great favorite with all lovers of the beautiful. Size, twelve by sixteen inches, and price $1.00.

The Eyes. — Touch on the white lights of the pupils with white carefully; also in the corners nearest the nose with a particle of vermilion mixed with white; use white, tinted with a particle of raw sienna, for the whites.

The Pupils. — Use raw sienna mixed with Vandyke brown and a little white; also use the same color, Vandyke brown and raw sienna, without the white, for the hair, using it with the white, or same as for the pupils, on the light part only of the hair.

The Lips. — Use vermilion, softened with white, on the light parts; improve by touching with madder on the front side.

The Flesh. — Mostly white, a little Naples yellow, less vermilion, a trifle blue; have the forehead and shoulders whiter than the other parts; rub a little deeper red through the flesh color, with the tip of the finger on the cheek, blending in carefully, and not too red.

Her Dress. — A rich crimson, or a purple, made from crimson lake, or madder and blue; touch on the front, the flowers, (the light parts,) with the same; the lining, Naples yellow, which should be also touched with the same on the lightest parts, on the plaid.

The White Drapery, held by her left hand; also that on each shoulder, above the crimson or purple dress, and that behind her head, between it and the stake, have all white, again touching the lightest parts on the front with the same skillfully.

The Stake. — Paint yellow ocher, mixed with a little burnt sienna; also mix white where the rays of light show on the corner. The cross paint white.

The Background. — Do not paint until all is wholly

dry; then mix yellow ocher with chrome green, or other colors, to make an olive green; this put on for the ground shading, and rubbing through it with white, in all the lights, and very light (with white) where the light comes in as a halo.

To frame, let it remain on the stretcher till thoroughly dry, some weeks if possible. See our directions for Grecian painting.

Madonna Della Scala. — Cabinet size, similar to the beautiful copies of Beatrice Cenci and Evangeline, described on an advance page; size of paper, sixteen by twenty-two inches, and of the same price, $1.00. This picture is by Correggio, and is decidedly the best Virgin and Child ever published. It is indeed beautiful, being taken from the celebrated steel proof worth $75.

Paint the flesh color with white, Naples yellow, trifle vermilion, and raw sienna; lips, vermilion softened with white; improve by touching with madder on the front side. Rub the vermilion through on the cheeks and chin, as directed above in the Marriage of John Alden. The hair paint with Vandyke brown and raw sienna, lightened in the light parts. The vail, a delicate blue, touched on the lighter parts in front. The dress, vermilion on the

back side, and madder on the front; or some might prefer a delicate color, like the dress of Priscilla in the Courtship of Miles Standish. Paint the child's hair with more raw sienna than the mother, and the flesh lighter color; otherwise the same. The eyes, light blue for the pupils, and the whites lightly tinted with blue. The dress, wholly white. Frame as before directed.

This picture is intended for a crayon study, rather than for a Grecian painting, as are also the pictures Evangeline and Beatrice Cenci, but it makes a beautiful thing in Grecian style.

EVANGELINE. — Size of paper, sixteen by twenty-two inches, cabinet size. Price, $1.00. This picture is intended for a crayon study, and is rather coarse for a Grecian painting, as is also the companion to it, Beatrice Cenci; still, as these are so beautiful, and have come to be such great favorites, and as they look, painted, really well, a great deal better than the coarse lithographic heads frequently used, we are led, through frequent applications for directions, to give the best colors for them.

DIRECTIONS FOR PAINTING. *Evangeline.* — Her face and eyes treat the same as directed in Jeanne

D'Arc; the hair also the same, only add more Vandyke brown, with more white in the light parts.

The Cloak. — Paint vermilion, and on the outside with a very thin coat of madder; touch on the light parts with madder, white and vermilion, mixed.

The Dress. — A drab made with Vandyke brown and white. This can also be improved by touching on the lighter parts. After the rest is wholly dry, put on the back, which is a sky mostly; cover with a very pale blue, rubbing with the finger white through for the lights. This picture can be framed as an oval, or you may paint down and make it square.

Beatrice Cenci. Companion to Evangeline. — Paint the flesh as the others; the hair a little more sienna, or perhaps it will be better to leave out the Vandyke brown for it; touch on the front with same; the cloth on her head paint white, or very light drab made as given for Evangeline's dress, only more white; her dress, or drapery, a delicate blue. When all this is perfectly dry, make a background, as shown for Jeanne D'Arc, but lightened a good deal with white. Frame as before directed.

The Happy Family. — A beautiful group. Size of plate thirteen by seventeen inches. Price, $1.25.

The Cottager. — Paint his face a dark flesh color, which is a mixture of white, a very little vermilion and yellow ocher; rub with the tip of the finger a particle of vermilion through the flesh color, on the cheek and chin, as directed in faces in our other publications; the flesh color may also be improved by using, on an otherwise clean brush, a very little madder slightly on the cheek; great care should be observed the flesh does not get too red. Paint the lips vermilion, lightened with white; touch on the front with madder slightly on the lights. His eyes, use raw sienna for the pupils; mix a particle of it with white for the whites; his hands, use the flesh color mixed before; his hat, Naples yellow; tip on the front lights the same; his collar and wristbands, white; his apron, a soiled white — use white tinted slightly with raw sienna. Paint his coat emerald green; his breeches burnt sienna lighted with white; his stockings, use the same, mixed with yellow ocher; his shoes paint white, except on the darkest parts, which paint Vandyke brown; (if you paint all a dark color, you lose the shade;) tip all lights on the front with slight touches of the same colors used on the back; make the string of his apron and the strap around his knee Naples yellow; his hair, raw umber.

For the other figures, the flesh color will be made of white, vermilion, a particle of Naples yellow. The boy should be a little darker than the others, but not so dark as his father; the smallest girl might be a shade darker than the older one, or the mother; make the cheeks as before directed in the Hiawatha's Wooing, etc.

The Mother should have a delicate blue cap; her waist, a darker blue; the chemise white, touched with the same outside next the blue waist; the sleeves rolled up make a very light shade of the blue and white mixed; touch the lights on the front with the same; make the apron Naples yellow; touch on the lights in the front; her skirt paint crimson lake.

The Cradle. — Paint Naples yellow; tip on all the lights very nicely and delicately with the same; the rocker of the cradle burnt sienna; preserve the light shades always, or the beauty and depth of the picture is lost. Paint the blanket in the cradle Naples yellow, the border to it red.

The Little Boy. — Paint his stockings vermilion; his breeches, blue; his waistcoat, crimson lake; his collar and sleeves, white; his shoes same as his father's; hair, raw sienna and burnt umber mixed.

The Little Girl on the left of the father, paint her hair raw sienna; chemise and sleeves, white; touch on the front with the same, also the light parts up and down her waist; paint the waist purple, made of crimson lake and blue; her apron stripe very fine with white and blue; on the front, the same very delicately; her skirt, orange chrome, or deep chrome and vermilion mixed.

The Floor. — The white squares white; the dark squares mix a little black with white; touch on the light parts of the seams with white carefully.

The Woodwork make oak color; use yellow ocher and a little burnt umber mixed.

The Plaster on the walls paint white; the bricks that show through paint red — use light red; touch on the front very carefully.

The Lantern paint white, slightly tinted with blue; the hanging drapery behind the mother paint vermilion.

Fine delicate touches over the whole, on the light parts, will improve the looks of the picture, and at the same time improve the eye, and help in designing and copying.

THE JEWS-HARP LESSON. — A beautiful new engraving, from a painting by Brunet. Size of plate eight and a half by ten and a half inches. Price, 60 cents. This

and its mate, the Little Bird, are the most perfect imitations of oil painting yet published, when done in the Grecian style.

DIRECTIONS FOR PAINTING. *The Jews-harp Player.* — His eyes should be hazel; use raw sienna and white, touch with white, as seen in the engraving, toward his right hand; tint the whites a little with the same; touch with vermilion very slightly in the corner nearest the nose; his complexion should be dark or sunburnt; use Indian red instead of vermilion, or darken with burnt sienna; the cheeks, rub through a particle of vermilion with the tip of the finger, being careful not to have it extend too far toward the nose or eye; touch his lip outside slightly with vermilion and rose madder; (see more particular directions for painting faces in Hiawatha's Wooing and Les Orphelines;) his hat paint blue, and touch on the light, outside, with the same, lighter; also, the tip of the sleeves; his shirt wristbands, white; also touch up in the front with the same; make his waistcoat vermilion on the back side, and rose madder on the front; touch outside lights with crimson lake and white mixed; his pantaloons, Vandyke brown and white, rather light; the apron, white, slightly colored

with Vandyke brown; the chair, yellow ocher; touch outside on the lights with Naples yellow.

The Girl. — Her hat, Naples yellow; touch on the front with the same; the ribbons and her dress, permanent blue, mixed with white; her cape or cloak, purple, made with permanent blue, crimson lake, and white; the chemise, white; touch outside slightly; the ostrich feather, chrome green, or green made from deep chrome and permanent blue; touch outside, at the end, with blue, vermilion, and black; make the shoes and stockings white; the bench she sits upon, yellow ocher and white mixed; make her flesh white, vermilion, Naples yellow, and blue — mostly white, a trifle of each of the others; rub a particle of vermilion through the flesh color on the cheek, with the tip of the finger, as directed for Minnehaha in the picture of Hiawatha's Wooing, Les Orphelines, and other of our engravings; her hair, raw sienna.

The Boy. — Hair, raw sienna, lighter than the girl; mix with white; his flesh, darker a trifle; his apron, white, with delicate blue stripes; touch on the front with the same; his pants, Vandyke brown, raw sienna, and white mixed.

The Dog. — White; his tongue and lips vermilion, also the corner of the eye; make the mason work white; in some places show the bricks underneath a brick red, on the back Indian red, on the front rose madder in uneven spots, and near the woodwork, as if the plaster was broken; touch white between the bricks, as seen in brickwork; have the woodwork in the roof and against the plaster work, yellow ocher, mixed with a little Indian red; the thatch between the rafters, a greenish-brown, as mentioned in the Little Bird; the tub on the shelf paint light blue, and touch on the front with same; the cloth in it have vermilion on the back side, rose madder on the front; the bunch of beets, crimson lake, with green tops; can touch outside the same; paint the decanter on the shelf as half filled with wine, madder lake each side the lower half; the upper half, white; the jugs, bottles, etc., the colors usually seen of such articles, touching outside on the lights; same used on the back; the cupboard back, Vandyke brown, raw sienna, and white mixed; these also touch on the face (lighter) with the same, on the lights left in the engraving. The effect is given principally with the delicate touches on the face or front of the picture, on the lights; still they

may be left out if the painter does not feel confident to undertake it.

This, with its mate, the Little Bird, for Grecian and antique painting, sent post paid, nicely done up on a roller, on receipt of $1.20.

THE LITTLE BIRD. — A beautiful new engraving, from a painting by Brunet. Size of plate eight and a half by ten and a half. Price, 60 cents. This, with its mate, The Jews-harp Lesson, are most perfect imitations of oil painting yet published, when done in the Grecian style.

DIRECTIONS FOR PAINTING. *The Man.* — His cap stripe with emerald green and orange chrome; touch on the outside with the same; his eye have hazel; use raw sienna and white; also tint the whites a little with the same; flesh color, use vermilion, a particle, white, and a little raw sienna; his lips, use vermilion; touch lips on the outside with rose madder; the cheeks, rub through a particle of vermilion with the tip of the finger, being careful not to have it extend too far toward the eye, chin, and nose; his neck-tie paint vermilion on the back, rose madder on the front; his coat have light blue, permanent blue and white; the cloth

lying in his lap make a soiled white — use white and a little Vandyke brown; his pants, use yellow ocher and white; his stockings, blue, white, and black, mixed light; paint his shoes white where the lights are, and mix with black for the rest. Be careful to preserve the lights and shades in this, and all pictures done in this style, or in antique. Paint the chair chrome green; touch outside the lights with white very delicately.

The Boy with the Mug. — Paint his hat Naples yellow; touch on the rim, outside, with same; his face, same as man, a little lighter; his collar, white; his waistcoat, stripe vermilion, deep chrome, and emerald green; touch on the front the same; the dipper paint white; his jacket, vermilion on the back, on the front, madder lake; touch on the front with vermilion; paint his hair raw sienna.

The smaller Boy. — Paint his apron white; his sleeve, purple, blue, and white, in stripes; his pants, yellow ocher mixed with Vandyke brown; his shoes, the bottom a reddish black; the chair he kneels in paint Indian red; touch on the front with the same; the basket nest paint yellow ocher; touch on the front, and on the spires of straw, with Naples yellow.

The Little Bird. — Paint chrome yellow; the chair, same as the one the man sits in; the other baskets paint Naples yellow; touch on the front with the same; the leaves in the basket, emerald green; the beets, crimson lake; the woodwork over it, around the fireplace, the rafters and bench, paint yellow ocher; touch on the front with Naples yellow; the mason work paint white, also the floor. A great improvement in the picture may be made by touching the plaster, where it looks rough, with crimson lake, in uneven spots, as if the plaster were broken off; after, touch on the front with the same, and touch with white, as if plaster between the bricks; paint the lantern white; touch on the front with the same; the fish, white, slightly tinted with blue; the square bottle, black, except in the light places, which paint white; touch on the front; the little vial, paint half up with madder lake, both sides, as if half full of liquid, the other half white; the thatch, chrome green and raw sienna mixed; the two jugs paint white where the light shows, and mix with Indian red for the rest — blend together a little with the tip of the finger; touch outside the lights with white; paint the barrel Naples yellow; touch with the same outside.

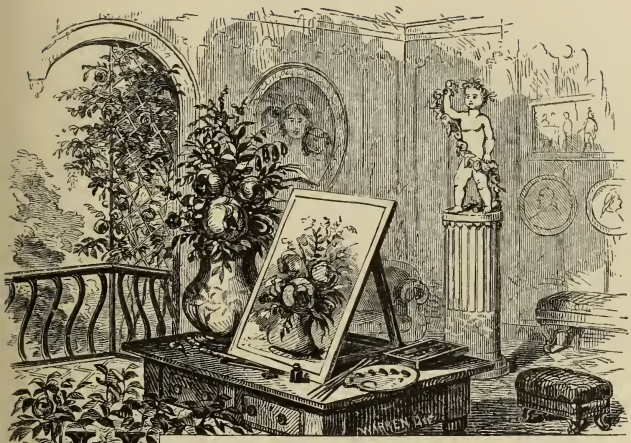
Les Orphelines — This is one of the most favorite pictures published; but as the directions are quite long, they are not inserted here The sheet containing them will be sent gratis on application to the publishers of this work. Retail price, $1.00.

In addition to these, we publish a large variety of small trial pictures, of pleasing subjects and artistic execution, which retail at twelve and a half cents apiece. New pictures, either from standard classic originals, or drawn by our first artists, are constantly being added to the list given above, all especially designed for Grecian painting, and accompanied with full directions for painting, for which there is no extra charge. Instances have come to the knowledge of the publishers, where some of these pictures, after being painted, have brought the high price of $50; and numberless instances where prizes and premiums have been taken. They are sent post paid by mail, on a roller, on receipt of advertised price.

Painting

in

Water Colors.



HOW TO PAINT IN WATER COLORS.

(In the advance section on Photograph Painting are many suggestions equally valuable in this.) To succeed well in this, one of the most beautiful as well as one of the most difficult of the fine arts, will require, in addition to a natural taste, a certain degree of industry that will be indispensable to success. There are two kinds of water color painting in

general use. We prefer using the moist colors for landscape painting, and the dry cake colors for flowers. The moist colors are put in little earthen pans, and fitted into a tin box, with a palette, all complete for painting out of doors or on the table. The materials to be procured for water color painting are, colors, sable brushes, paper, a drawing board, an eraser, an old silk handkerchief for wiping out lights, a small bottle of gum water, a soft sponge, a one and a half inch flat camel's hair brush, a china palette, or a set of saucers.

The paper most desirable for landscapes in water color should be rather rough on the surface, as, if it is too smooth, the painting loses much of that boldness which characterizes the English school. Whatman's paper is considered the best.

Brushes. — A complete set of brushes comprises a one and a half inch flat camel's hair, one each of swan, goose, duck, and crow; best sable brushes; select those that come to a point when charged with water, and when bent a little on one side, will spring back to the proper position without splitting.

Colors. — For landscapes, a tin sketching box, containing gamboge, French blue, raw and burnt sienna, yel-

low ocher, Venetian red, Vandyke brown, Prussian blue, olive green, brown madder, crimson lake, Indian yellow, and a bottle of Chinese white.

Stretching and Preparing the Paper. — The painting side of Whatman's paper is known by holding up the paper between your eye and the light, and reading the name in proper position from left to right. This must be the outside. Place the paper on a table, and moisten the back well with a soft sponge and clean water; let it remain a short time, if the paper is thick, so that it may become saturated; then place it in the frame of your drawing board, confining it with the cross-bars. Sometimes the paper, after being damped, is put upon a plain clamped drawing board, fastened down with glue round the edges; this mode of straining causes a little more care, and is not so expeditious.

Wiping out Lights. — The parts of a picture (after the color is on) that require half lights, should be treated as follows: Mark out with your brush, and clean water, the parts you wish lighter, and then apply a little blotting paper to absorb the moisture; next wipe it hard with a silk handkerchief, and if not sufficient, repeat it; if you desire it still lighter, use the rubber.

Scraping. — Before using the eraser for any extra high lights, the painting must be perfectly dry.

Rays of Light. — Such as occur from an opening in the cloud, through windows, etc., can be successfully produced by placing a straight-edged piece of paper in the direction of the rays, and gently washing the exposed part with the damp sponge.

Using the Brush. — The effective handling of the brush requires rapidity and experience in covering large spaces with flat washes of color. It is well to commence brush-work, after making suitable proficiency in outline, with India ink or sepia; you then have but one color to deal with, and, with a little practice, all the mechanical difficulties of floating the color evenly will soon disappear. As a general rule, the brush for broad shades should be pretty full of color; but for finishing, all the colors are worked much drier, and the brush worked chiefly on the point.

Outline. — We will suppose that the paper has been properly strained on the drawing board, and allowed sufficient time to dry; the outline is then commenced. In making a sketch for water-color landscape, it is best to sketch very lightly at first, so that the marks can read-

ily be removed if required; as by hard rubbing the surface of the paper is liable to be disturbed. Proceed with all the minute details, sparing no pains in the sketching; the time is by no means thrown away, for you are remunerated for it when painting, as you can work with perfect confidence up to your sketch-marks. The appearance of a good sketch should be lightness in the extreme distance, working a little stronger as the foreground is approached. In the foreground, boldness, observing a fineness of line on the light side, and breadth and depth on the shade side, so that even the pencil sketch may be suggestive of what the picture will be.

In commencing to color, the drawing should be elevated a little at the back, to allow the color to flow downward. Moisten all your drawing with the flat brush; press your blotting paper upon it to absorb the superfluous moisture. As an example of a method, we will suppose that the artist has a tin sketching box, with divisions in it. In one of these, make a pale tint of Indian yellow and crimson lake; in another, a tint of French blue, with a little of the other with it, so as to make it pearly; charge your swan quill brush pretty full with this pearly tint, and then work in the crimson tint.

gradually adding a little more Indian yellow as you approach the horizon; carry the tints down to the edge, varying with burnt sienna, or more yellow, or the pearly tint, according to the nature of the subject. When dry, if the colors are not blended sufficiently together, or too dark, pass the flat brush, with clean water, backward and forward, to subdue and soften them. The whiteness of the paper will thus be removed by a graduated tint, which may be made available as an undertone for the colors that come over them. The sky may now be delicately tinted with pure French blue, and clouds formed. The distant hills can be carefully painted in with pearly gray, and increased with more color as you proceed toward the middle distance, adding more or less madder brown and yellow ocher, as the subject may require. The distant hills may be strengthened, if required, with a little French blue, and perhaps warmed with a little crimson lake. Let the foreground be paler than the general tone; the sky and hills should be finished before the trees are commenced. Have a free touch, leaving little openings now and then for the light to strike through; beginning at the top and working downward, with your brush pretty well charged, varying the greens

as you wish them, making them with gamboge, raw and burnt sienna, and Prussian blue. Increase the tone of the shadows with another brush, but with the same color, only adding a trifle more blue, and some crimson lake, to make a neutral tint. The foliage that catches the sunlight should incline to a yellow tint. Paint the trunks and stems with Vandyke brown. Repeat the tints on the foliage when dry, until the required form and depth are obtained. For winter trees, cobalt blue and Vandyke brown, mixed, make a good color to paint in the network and branches of fine trees. Some artists, in finishing their paintings, use gum to bring out and enrich colors. Never use gum water in the sky or distance, as it washes off so readily, and disturbs every color near it. In finishing up the picture, you are referred to the different methods of producing effects by wiping out and scraping. The opaque white is very serviceable in finishing, or for assisting in the introduction of figures in the foreground. Parts can be penciled in with white, and stained over with the requisite color.

Flower Painting in Water Colors. — Henry Ward Beecher, in one of his lectures, asserts that "if a man

does not love flowers, he is not born perfect." This remark we cheerfully indorse, as it sponges out the pretended superiority of a class of artists who look down from their high pinnacle of fame, and ignore flower painting, considering it merely a genteel trifle. This opinion, we are sorry to say, is prevalent among some artists who ought to know better; for flowers and their associations are ever attended with pleasing reminiscences, and he who can best transfer their appearance to paper should be classed among the valuable artists.

The artist's palette is greatly enriched by the color maker who obtains his brightest suggestions from flower tints, and is consequently enabled to imitate more closely those brilliant colors Nature has so bountifully scattered among her choice flowers.

The colors and materials requisite for flower painting are, carmine, crimson lake, cobalt blue, Prussian blue, vermilion, gamboge, raw sienna, burnt sienna, burnt umber, Chinese white, yellow ocher, and Indian ink; in addition to these, a set of saucers, a little dissolved gum arabic, and a few sable brushes. These colors are sufficient for ordinary purposes; but if flowers of superior finish are required, it will be necessary to add the fol-

lowing: Rose pink, or rose madder, royal scarlet, Indian yellow, Indian red, indigo, smalts blue, sepia, Vandyke brown, sapphire green, and emerald green.

Flower painting can be done to good advantage on Whatman's hot pressed paper, stretched on a board, in the same manner as directed for water-color landscape painting. Bush flowers are more generally painted on London board; the ivory surface is sometimes preferred. In sketching flowers from nature, or from copies, it is essentially requisite to make an accurate and clean sketch; for this purpose make a fine point to your pencil, and draw the marks faint, so as not to require too frequent use of the rubber, as by rubbing (unless very carefully done) the smooth surface of the paper is liable to be disturbed. When the sketch is finished, moisten all the parts intended to be painted with a brush moderately full of water. (Distilled water, or, if this can not be readily obtained, soft or rain water will answer; never use hard water, unless it has been boiled.) By coating the piece over with water, it prepares the paper better to receive the colors. Most of the flowers are commenced by coating over the shaded parts with Indian ink, or neutral tints very pale, so blending the shades

that they will be imperceptibly lost. To do this, two brushes are required, one charged with the color, the other nearly dry. The leaves are treated in the same way; the flowers, after being carefully shaded with neutral, are coated with local color, or as near their respective color as the general tint can be obtained; finish either with a number of soft washes, or with small touches. This latter style is called *stippling*, and if done with skill, is very beautiful; but as it takes time, taxing the patience of the most patient, it is not so generally adopted as the wash and softening style. By practice, the eye will become accustomed to observe a variety of shades, where before they could barely discriminate any.

Green leaves, when of a yellowish pale green, and bright, are painted with gamboge, and a very little Prussian blue, and penciled over until the desired effect is obtained; for darker green leaves, use more Prussian blue, finishing with stronger color; for the deepest shades, add a little crimson lake, or Vandyke brown, or burnt sienna, as the shades may require; for decayed leaves, use burnt sienna, Indian yellow, and crimson lake.

Yellow Flowers. — In painting yellow flowers, examine whether the shades are warm or cool; and if the latter, paint them with Indian ink; if the former, paint them in with a little burnt umber. When dry, coat evenly over with gamboge — the general tint of the flower. Where the high light strikes, it can be washed out a little with the second brush, slightly moist. Repeat the color in the stronger parts, finishing, if requisite, with a little carmine, or burnt sienna, added to the gamboge.

Blue Flowers. — Coat them evenly with cobalt or smalts, according to the tint. Smalts blue is rather difficult to coat on evenly, and should not be used until some skill and experience are obtained. Cobalt, with a little rose madder added, may be used as a substitute. Shade the deeper parts of the flower with a little Prussian blue added to it; and if a very deep shade is required, add indigo.

Purple Flowers. — Make the desired tint with carmine and Prussian blue, increasing the shade to the depth required, using more color and less water.

Scarlet Flowers. — Paint the shades in with cobalt blue and a little Indian red; then coat it smoothly with royal scarlet, or, in lack of this color, use carmine and gamboge mixed, the proper tint, finishing up with carmine on the shades. If the flower is coated with royal scarlet, add carmine to it in the finishing.

White Flowers. — Some are first shaded with Indian ink, while others are shaded with a neutral composed of cobalt blue, rose madder, and a little Indian yellow. When dry, some of the petals are slightly tinted with a weak shade of yellow ocher, some portions with cobalt blue, others with a greenish neutral: the anthers, if not left white, should be done with permanent white, added to Indian yellow, and carefully dotted with weak burnt sienna.

The Deep Crimson, Tuscan Rose. — Shade all the petals more or

less with Indian ink, until it would pass for a finished drawing in Indian ink; then coat it twice with strong carmine, and finish the deep shades by adding a little Prussian blue to the carmine.

Pink Rose. This flower is the most difficult of any to paint, as it requires so much delicacy of manipulation to give it its true representation. The most successful method is to paint in the shades with pure cobalt blue, and then coat all over with a pale shade of carmine, with a little vermilion added. This is repeated on some of the petals until the requisite depth is obtained: some of the outside petals may require a second working over with the cobalt, to give them a thin, transparent, neutral appearance.

Arranging and Grouping. — With those who possess naturally a good eye for color, the most pleasing arrangements of form and color will naturally suggest themselves without the least effort on the part of the designer. For those who are deficient in innate taste, it would be well to study a few groupings and colorings of the best flower painters. Sometimes a very pleasing effect is obtained by placing the light flowers in the center, such as white, light pink, pale yellows, and have the rich, dark-colored flowers outside — such as dark roses, hollyhocks, fleurs de lis, etc., thereby making color a substitute for light and shade. The most pleasing groups are painted with a slight predominance of warm coloring. Some artists paint nearly two thirds of the flower grouping with warm colors.

Theorem Painting.



THEOREM PAINTING. This style of painting has had many names, namely, Poonah Painting, Theorem Painting, and Oriental Painting. It is better adapted to fruits, birds, and butterflies, than to landscapes and heads. It will enable you to paint on paper, silk, velvet, crape, and light-colored wood.

To make Horn Paper. — Take equal parts of copal,

mastic, and Japan varnish; add to the mixture half as much balsam of fir as there is of either of the varnishes, and a piece of white wax the size of a thimble; simmer these together till the wax is melted. If the composition is too thick, add a little spirits of turpentine. Put it upon one side of the paper while it is warm, the paper having been previously prepared with painter's oil, to make it transparent; the oil must be put upon both sides of the paper, rather warm, and the whole of the paper lie together one night; then wiped with a cloth to absorb the oil on the surface, and dried one week in the sun before varnishing. Each side of the paper must be varnished twice, and the greatest care taken to dry it well.

Trace the picture you intend to copy on white paper, with a soft lead pencil, then mark those parts which do not touch each other with a figure 1. Lay the horn paper over the sketch, and trace with a sharp-pointed penknife, or large pin, all the objects marked 1. Mark another piece of horn paper for theorem 2, and cut again; thus continue till you have enough theorems cut for your whole picture. Of course, it will require much more time to cut a set of theorems nicely, than it would to draw one

picture; but remember that a good set of theorems is equal to twenty-five or thirty sketches. The durability of your theorems will depend upon the care with which you treat them.

Do not attempt to paint with less than a dozen stiff brushes, because you must have one for every color you need to use; and, as has been mentioned elsewhere, put a few drops of water on your palette with the end of the brush, to avoid dipping the bristles in water.

Lay the theorem on the paper on which you intend to paint. (Good drawing paper is best for the first attempt.) Press the theorem firmly down with weights at each corner, and proceed to paint.

Commence with a leaf; take plenty of paint, a very little moist, on your brush, and paint in the cut leaf of the theorem; hold the brush upright, and manipulate quickly with a circular motion. It is best to begin at a little distance from, and work toward, the edge; if you take just enough paint, it goes on softly and smoothly; if too much, it looks dauby; if too little, spotted.

To shade the leaves, cut bits of horn paper on the edge, in the form of the large veins, and laying on the leaf already painted, paint from this edge into the leaf;

slip the paper, and paint other veined parts in the same way.

If successful with a leaf, try a grape. We paint first purple, then blue, and finish off with carmine.

On removing the last of your theorems, if you see any inequality in the painted parts, lay the theorem on again and correct; if any spaces, fill up by dotting in with a fine brush. All stalks, fibers, dots, etc., must be put in with camel's hair pencils.

In many parts of a painting, the effect is hightened by striking on paint here and there with the stiff brush, and blending the edges together to produce softness.

To paint on Wood. — Choose hard wood, of light color; paint as above, and varnish when done.

To paint on Velvet. — Select firm, white cotton velvet. Use the paints a little more moistened.

To paint on Silk, Satin, and Crape. — Size the parts to be painted with gum arabic, or isinglass, and proceed as with drawing paper. We have seen ball dresses painted, with belts and neck ribbon to match; also white crape dresses, with vines of gold and silver. See article upon *Gilding*.

Photograph Painting

in

Water Colors.

Choice of Photographs,

AND OBSERVATIONS UPON THEM.*

USE a light photograph for coloring, in preference to a very dark one, and let the general hue be gray, inclining to black in the shadows. See that it be well defined, that the shadows and middle tints are clear, and that the background be free from blemishes and black and white spots.

The heavy, dark tints which prevail in some photographs are badly adapted for fair complexions, as considerable difficulty is experienced in working the gray tints over them; indeed, the only way left for the artist is to lighten them up with

* Many of the principles and suggestions in this section are equally applicable to painting in general.

a little body color, than which nothing can be more objectionable, because all gray and pearly tints ought to be purely transparent, so that the flesh color may be seen under them. When the complexion is dark, the difficulty is considerably lessened ; for, upon the application of the warm colors, these heavy photographic tones decrease in depth, and assume a color which is not badly adapted for finishing the pearly tints upon. Ladies' and children's portraits should always be lighter in the shadows than the masculine head, for the purpose of giving that softness which is their characteristic ; painters usually throw more light upon them than they do upon the male head, which is better suited to a depth of shadow. Heads of aged persons, of both sexes, should likewise be placed in a full light, as it tends to soften and subdue the prominent markings of age.

Always have a duplicate copy before you while at work, to refer to and assist in keeping the resemblance ; but, if possible, get the original of the photograph to give you two or three sittings, so that you may copy the colors from life, for it must be evident to every one that a good portrait can not be produced unless nature be taken for the model.

It is evident that you must first paint the flesh, thereby partially obscuring the photographic tones and shadows, and *upon* it lay the shadows, gray and pearly tints, as they really do occur in nature, all, in point of color, being widely different from the photographic shades.

If you have never attempted any thing from the life, it will be advisable to procure a photograph from an oil or crayon portrait, and, placing it before you, proceed to copy the various tints as they appear in the picture. It will perhaps surprise you to observe how much of a good painting is made up of shadows, gray and pearly tints, which you will easily detect by moving a piece of white paper about to various parts of the face: you will then observe how much these tints prevail, and how far they go toward forming one harmonious whole.

If you are an amateur photographer, place your sitter a little higher than is usually done, as by that means you will give the neck its due length, and consequently add dignity to the head; for it looks exceedingly ungraceful to see the shoulders upon a line with the ears, which is always the case when the sitter is upon a low chair, and the operator is looking down upon him. Portrait and miniature painters invariably place their sitters higher than themselves — photographers too frequently the reverse.

If you use a screen to form a background, place it some distance from the sitter — say three feet, or even more — to gain space or atmosphere behind the head; and if you introduce curtains, take care to keep them away from the portrait, so that they may not appear to be a part of it. Do not be over-anxious to crowd your picture, as many professed photographers do, with gaudy bed-furniture curtains, old-fashioned chairs, vases of artificial flowers, plaster of Paris pillars, etc., and the usual table placed so conveniently for the sitter to lean upon, and for no other purpose — making the head a secondary object entirely. Such "professors" either know nothing of the rules of composition, or are anxious to give their customers as much as they can for their money.

Preparation for Photographs. — There being some difficulty in apportioning the ingredients for size to harden the surface of photographs, and many chemists having urged objections against its use, as tending to injure the photographic tones, we have, therefore, given the matter a careful consideration, which has resulted in the following receipt: —

Take a piece of white glue, (that made from parchment is the best,) about as large as a nut, and put it into a cup with three table-spoonfuls of warm water, and as much ground

alum as will cover a quarter of a dollar; stir them well till the size and alum are dissolved, and apply the mixture.

To prepare the Photograph. — Dip a flat camel-hair brush into the preparation, and go gently over the whole surface of the photograph, taking care not to make it too wet. It should be merely brushed over slightly; but every part must be covered, or the color will sink into the places you have missed.

When it is dry, wash it with a sponge and cold water, to remove any extraneous matter which may have lodged on it. Gum or paste the back, and lay it down on a good thick piece of card-board, and, placing a sheet of writing paper on the face of the photograph, with a silk handkerchief rub it softly, to smooth and flatten it down; when dry, it is ready to work upon.

Some photographic papers are more porous than others, and will therefore require two coats of the preparation; but one is generally enough. Wet a corner of the photograph with color, and if it washes off, leaving no indication of a stain, it is in a condition to work upon; but should the color sink into the paper, it will be necessary to give it another coat. It is essential that the paper be well hardened, as every thing depends upon it; for, if

it be not properly prepared, it will not take the colors kindly — you will be unable to obtain force or brilliancy, and, in fact, all the labor which you can bestow upon it will be "stale, flat, and unprofitable."

Albumenized paper seldom requires any preparation, but need only be carefully washed with cold water and a soft sponge; you may then hold it up before the light, and if you observe any transparent spots upon it, like grease, there the water has gone through, and you will find it necessary to touch them with the preparation already referred to.

Colors. — The under-mentioned colors, in cakes, are necessary. (We affix the prices of Winsor & Newton's paints, as they are by far the best.)

Carmine	$1.25	Emerald Green	$0.25
Rose Madder	75	Indigo	25
Crimson Lake	38	Prussian Blue	25
Venetian Red	25	Burnt Sienna	25
Indian Red	25	Burnt Umber	25
Vermilion	25	Sepia	38
Chrome, 1, 2, 3	25	Vandyke Brown	25
Indian Yellow	38	Madder Brown	38
Roman Ocher	25	Ivory Black	25
Gamboge	25	Chinese White	38
Cobalt	50	Constant White	38
French Blue	75	Half cakes at half price.	

Constant White is nearly out of use, Chinese or zinc white having almost superseded it; the only parts it is adapted for being the light on the eye, lace, and linen. It possesses little or no body, and is therefore valueless in cloth fabrics.

Chinese, or Zinc White. — This is the most valuable white that a photographic colorist can use: it washes freely, either by itself or in combination with other colors, and possesses this advantage over other whites, that it does not change color in drying. Flake white, which was so much used by miniature painters, invariably dried several shades lighter than when first applied to the paper or ivory, and was liable to change. Chinese white must be kept away as much as possible from any color which has iron in its composition, as it has been found to be affected by it. It is used for lights upon cloth, metal, etc. In its pure state it is shadowed with cold gray, deepening into a black in the darkest places.

Indian Yellow. — A most powerful color, used in flesh and draperies; is permanent, and works extremely well; forms, with indigo and burnt sienna, several beautiful greens, etc.; shadowed with sepia and purple lake.

Indian Yellow, Indigo, and Burnt Sienna are useful for green draperies and backgrounds.

Gamboge, Indigo, and Burnt Sienna form a good green for draperies and backgrounds. Green is not a good color to use too freely in portraits, for unless the flesh be very sallow, it spoils it. Subdue it as much as possible, and shadow with lake and sepia, glazing with Vandyke brown.

Cadmium Yellow. — A very bright color, and its durability may be relied upon; it is serviceable in draperies, and in forming orange tints, but is too powerful for flesh.

Gamboge. — Not a good color for flesh, as it is too brassy; use-

ful in its combination with indigo and burnt sienna, in forming a multitude of greens and browns.

Emerald Green. — Very useful for the high lights of some bright greens and stones in jewelry; when mixed with gamboge it forms a delicate pale green for ladies' dresses, the high lights for which have zinc white and lemon chrome added to the local color.

All green drapery should be kept away from the flesh as much as possible. Shaded as other greens.

Chrome. — There are five different shades of chrome, commencing with a pale primrose, and deepening into a powerful orange; they are all opaque, are good working colors, and are sometimes used in dark flesh tints, and always for the reflected lights under the chin. With indigo they form a number of different shades of green, which may occasionally be used for background draperies, when the photograph is heavy and dark Chrome is likewise used for gold ornaments, although Roman ocher is to be preferred; when used in its pure state, it is shaded with burnt umber, and, in the darkest parts, burnt umber and lake. High lights, the local color and Chinese white.

Roman Ocher. — Useful in draperies and for strengthening up the yellows in very dark complexions, and is, perhaps, the best yellow for gold ornaments. It serves likewise for all kinds of flaxen hair, either by itself, or when combined with sepia, but is not often used in draperies.

Burnt Sienna is too foxy a color for flesh, although in very dark complexions it is sometimes admitted; but generally the Indian yellow or Roman ocher is to be preferred. If there be an out-door scene for the background of the portrait, this color, when combined with indigo and gamboge, will be found very useful for all kinds of foliage, these three colors forming a number of green tints. High lights, chrome; shadows, umber and lake.

Ultramarine. — For durability and brilliancy, there is no other blue at all to be compared to ultramarine, and although many substitutes have been offered, yet none have approached it in beauty. Cobalt, which is very generally used instead, sinks into utter insignificance when placed near it. Genuine, it is a very expensive color; the imitation is known as French blue. If you wish to substitute ultramarine for cobalt in the grays, you must be very sparing of it, because it is a very powerful color — sometimes used for ladies' dresses and the sky in backgrounds. Cobalt and a little lake make a color approximating to it, shaded as cobalt. High lights, the local color and Chinese white.

French Blue is well adapted for draperies, and occasionally for the sky in backgrounds, but for the latter purpose cobalt is preferable. It is a powerful color, possessing great body, and, like all blues, requires subduing with warm browns. By candle-light it assumes a dark, heavy appearance, almost approaching to black. Treated in the lights, and shaded as cobalt; when the color is used in great strength, the shadows must be powerful.

Cobalt. — Permanent, and a good working color; used freely in grays, pearly tints, and shadows — washed or stippled over indigo for blue skies and backgrounds. Blue, being a cold color, is apt to destroy the effect of your picture, unless you subdue or kill it; negative it, therefore, as much as you can, by toning it down with warm colors, keeping all your shadows of a brownish tint, and leaving your high lights only positive blue. These remarks apply solely to blue draperies.

Prussian Blue is not admissible in flesh tints at all, being liable to turn to a greenish hue. It is very useful for blue draperies, and when mixed with gamboge, bright greens are produced. Prussian blue, and lake or carmine, make a number of purples, violets, lilacs, &c.

Indigo. — A very dark blue, and a good working color; useful, with gamboge and burnt sienna, in forming greens and browns of almost every possible shade; while with carmine it produces purples and violets, and may sometimes be taken, instead of cobalt, for the dark shadows of the face. Indigo and Prussian blue make an excellent color for blue cloth — add a little lake if you desire to produce a coppery blue, which so frequently occurs.

If you would have a blue background of considerable depth, but at the same time not glaring, wash in with indigo, or indigo and lake, and work over with cobalt.

Indigo and Carmine. — An excellent purple, and better adapted for draperies than Prussian blue and carmine, being less gaudy; in both instances the carmine used should be dissolved in ammonia, and no gum added.

Carmine is the most brilliant crimson we possess, and when mixed with vermilion, forms the best color for officers' coats and background draperies, but for the latter purpose it must be much subdued. Spirit carmine and the blues form many useful purples, &c. (See *Prussian Blue.*) Spirit carmine is made in the following manner: Obtain some color in powder, wet it with a few drops of liquid ammonia, and let it stand till the spirit evaporates, and it is then, with the addition of a little water, fit for use. It is better for draperies than the cake color, but it must not be used in flesh tints. Should it become dry and unfit for use, put in a little water to moisten it; there is no necessity for a second application of ammonia, unless it dries upon the photograph and comes off.

Indigo, Gamboge, and Burnt Sienna. — A brown made up of the above three colors is useful in hair, draperies, etc.

Carmine and Vermilion makes, perhaps, the very best color for officers' coats, and draperies of a like description, but it is too

bright to use in the background, unless you subdue it, which may be done with sepia and lake.

Rose Madder. — A most useful color in flesh and carnations, and when necessary, may be strengthened with lake or vermilion; it works well, but possesses little intensity. Rose madder tints are found in youth; but as your sitter approaches middle age, a little lake or vermilion is added to heighten them. Portraits of aged persons have more lake than madder; while in the complexions of children vermilion predominates over the latter color. Rose madder is a good color for glazing the under lip.

Crimson Lake. — For flesh tints and draperies, all lakes are exceedingly useful, not only by themselves, but in their combinations with other colors. When used as a shadow color with sepia, it is better to have purple lake.

Vermilion is frequently used in flesh washes for fair people and children; but it must be with extreme caution, as it is a very heavy color. In its pure state it is a good color for the lips. Elementary works generally give three different vermilions, viz., vermilion, scarlet vermilion, and orange vermilion; but you can make the two last named, by adding to the first, carmine for the scarlet, and gamboge for the orange, which will answer every purpose. Combined with rose madder for children's carnations.

Light Red. — A durable color, and of great use in flesh; with carmine or vermilion, and a little Indian yellow, it forms a wash which, when properly modified, will do for almost every complexion. Miniature painters, with this color, cobalt, rose madder, and Indian yellow, make their gray shadows and pearl tints.

Venetian Red, differing but slightly from light red, may be used for precisely the same purposes.

Indian Red. — A good color for strengthening the darkest shadows on the face, but must be used sparingly, being in its nature

very powerful; has great body, and inclines to a purple hue. It is durable and works well, and when used with lake, is a good color for putting in the upper lip with.

Burnt Umber. — A good working color, but seldom used, except for hair and draperies.

Vandyke Brown. — So named, after the prince of portrait painters, in consequence of the free use of it in his works. It is a fine glazing color, and is well adapted for strengthening the shadows under the nose, glazing the darkest shades of green draperies and the hair. This is, perhaps, the most beautiful brown that we have.

Madder Brown. — A very rich brown, and of great use in draperies; combined with cobalt, it forms many very excellent grays suitable either for the face or background.

All madders are said to be permanent.

Sepia is the most useful brown, no other entering so largely into combination with other colors as this does; with lake, indigo, and gamboge, a pure transparent black is formed, calculated for silks, satins, and black cloth. Sepia and lake, again, make the best color for giving the sharp touches about the eyes, eyebrows, etc.; and for the hair it stands unrivaled by any other brown, being useful not only in the lightest, but also in the very darkest tints.

Sepia and Indigo. — A gray formed of the above colors is of use for backgrounds; may be strengthened in the darker parts with sepia alone, and warmed with Vandyke brown.

Sepia, Indigo, and Lake form an excellent black, used for silks, satins, and as a shadow color for black cloth. With these three colors you may make a black of any required tint. Keep the darkest shadows rather red. Another black is made up of indigo, purple lake, and gamboge, and is equally as good as the former, and used for precisely the same purposes.

Lampblack. — A strong body color; is chiefly used with Chinese white for black cloths and velvets.

Ivory Black. — Much the same as lampblack, and is occasionally used in lieu of it. It is, however, a little browner than the former; both work freely.

Choice of Pencils. — Let the pencils which you select be sable, and of a middling size; it is very injudicious to use small ones, as they impart to the work a harsh appearance, which is by all means to be avoided; therefore work with a good-sized pencil, the quill being somewhat smaller than a goose or swan pen, and capable of holding a reasonable quantity of color in fluid. With such a one you will be able to give those firm touches which are so much admired by judges. You will, however, sometimes need to use small pencils, in marking in the eyes, nostrils, etc.; but for all large washes they are worthless. When purchasing pencils, dip them into water, and bring them to a point on the nail of your thumb. The hairs must be all of a proportionate length, having a fine flue attached to the points, and, when moderately full of water, should, upon being bent, spring back to their original form. See that there be no straggling hairs about them, and that they do not split or divide. A few French camel-hair pencils must also be

obtained, for you will find them very useful in laying large washes upon the background where you require smoothness, but they are not elastic enough for general purposes. A flat camel-hair tool, with which to size the photograph, is also necessary.

Coloring the face, etc. — Commence with a large pencil to wash in the flesh tint; go over the whole face, and leave it to dry. Then put in the carnations, but do not be in a hurry to do too much at once; keep all the colors under, for it is easier to highten up, as you go on, than to reduce them, if they are made too powerful. Put a little color now on each lip; the upper one, which is almost always in shadow, may be laid in with lake and vermilion, and the under one with carmine and vermilion, the latter predominating, if the subject be juvenile. Give the background a wash, and proceed with the draperies. Highten the carnations, and lay on the yellows, which are perceptible in almost all faces, but more particularly aged ones, about the temples, eyes, and mouth. Strengthen up the eyes, nostrils, and mouth with lake, and do the like to the hair with the proper shadow color, working in the direction of the curls, or in a wavy manner, just as it may be adjusted;

and glaze over the under lip with lake or rose madder, in accordance with the natural tint. The white of the eye, as it is commonly called, varies in color as age advances — in childhood and youth it is nearly a positive blue; gradually it loses that tint, and merges into a pearly tone, while in old age it becomes nearly yellow. For the pearly tone, you will use a like color to the pearly tints of the face, increasing the blue as you approach to childhood, while for aged sitters a pale wash of Indian yellow may be taken. The iris must be laid in with transparent color, then shaded, and afterward finished with Chinese white. The pupil is always touched in with a dark color, and the speck of white is laid on at the last. If the eye be black or brown, the same lights are used as for black or brown hair, namely, light red and Chinese white for the former, and neutral or purple tint and white for the latter.

It is a practice with several miniature painters, in hightening the complexion, to lay the colors in little square forms, working their pencils in various directions, and leaving the interstices to be filled up afterward by stippling. This method gives what is called a *fatty* appearance to the work, and renders it bold and masterly.

Others, again, finish off with hatches, and the crossings of the pencil somewhat resemble the lines in a fine-line engraving of the face, being worked as much as possible in the direction of the muscles. But this should not be resorted to till near the end of the work; for if you begin too early, you will never be able to gain depth, and the more you labor, the more wiry, harsh, and dry will the character of your performance be. When the flesh color has been sufficiently hightened, and is as near to the original as you think you can get it, then begin with the pearly gray and shadow tints, keeping them as pure and transparent as possible, working with a light hand, for fear of disturbing the under color, which must not be suffered to mix with them, or they will become muddy, and consequently lose all their transparency. Grays are not intended to hide the local color, but only to be passed over it as a glaze.

In coloring photographs of ladies, you can not fail observing that their necks are always much lighter in color than their faces, and that the pearly tints are seen in them to advantage; use the flesh wash much lighter for the former than the latter.

Note that the delicate blending of these pearly tints

into the flesh and shadows, gives softness and rotundity to the work; for if the shadows be left hard against the lights, not being duly graduated into them with the pearly tint, your picture will appear crude and harsh, wanting that connecting link which they form. The palms of the hands and tips of the fingers are generally of a pinky hue, and the backs are much the same in tone as the neck. In your anxiety, however, to make them appear delicate, be careful not to keep them too white, as that will mar your picture. But in many instances this caution is unnecessary; for unfortunately photographs generally are heavy and dark, so that you will be necessitated to brighten them up considerably.

It may now be presumed that the face is nearly finished; all remaining to be done being to give the sharp, spirited touches which occur about the eyes, mouth, and nostrils, and impart life and intelligence to the whole countenance. If the original of the photograph be dark, you will use sepia and purple lake in nearly equal proportions for that purpose; but if the sitter be fair, you must discard the greater part of the sepia.

It should have been remarked before, that the shadow, which almost always occurs under the nose, may be

glazed with Vandyke brown; but be careful not to make it heavy.

The background, hair, and draperies, will next claim your attention; but ere you finish the hair, it will be necessary to complete the background, so that the hair may not be interfered with by the background color coming up to or over it; but let the hair be brought over and finished upon the background in a light, feathery manner. When the background is complete, give the last touches to the shadowed parts of the hair, and lay on the high lights.

No mention has yet been made of gum, which is in request with some photographic colorists, but which had better not be resorted to at all if you can possibly do without it. However, if your work appears dull and spiritless in those places where it should be otherwise, a little gum may be used for the eyes, parting of the lips, hair, and eyebrows. You may either mix it in the color for the last touches, or use it by itself, as a glaze; but do not use much on the picture, for it gives it a disagreeable appearance.

Flesh Tints. *No.* 1. *Fair Complexion.* — Light red, a little carmine or vermilion, and Indian yellow; be very careful in using

the latter, for the reasons before specified; and, in the flesh tints of very fair children, allow the vermilion to predominate. Carnations, rose madder, and, if the face be full of color, add a little vermilion to it.

No. 2. *Middling Complexion.* — Much the same as No. 1, saving that the light red must be in excess over the other colors — carnations, rose madder, and lake.

No. 3. *Dark Complexion.* — Light red and Indian yellow, or light red and Roman ocher, and if the complexion be generally ruddy, you may add a little Indian red; but it must be sparingly used, as it is a powerful color, and likely to impart a purple tone to the flesh. Carnations chiefly lake; but if the complexion be warm, lake and a little yellow. The carnations for children's portraits are rose madder and vermilion, inclining more to the latter tint. Aged persons have rose madder and a little cobalt, to give a cold appearance to the color in their cheeks and lips.

These tints, Nos. 1, 2, and 3, are indispensable, as general washes, for the purpose of receiving the other colors, which are to be worked over them to bring up the complexion to the life.

Uncolored photographic portraits vary so much in tone, that the beginner will, perhaps, find some difficulty in mixing up the tints for the washes. He must note that the warm-toned ones do not require so much Indian yellow as the cold ones do.

Shadow, Gray, and Pearly Tints. *No.* 1. *Fair Complexion.* — Cobalt, rose madder, Indian yellow, and light red, will produce every variety of the above, from the most delicate pearl up to the strongest shadow color, and are suitable for every complexion. It must be borne in mind that the gray should be kept cool, and the shadows warm, and that in laying them on, particular care must be taken that the under tints are not disturbed, otherwise you will

muddle the grays, etc., and make them opaque, which is always to be avoided, as it is intended to show the flesh color under them.

These tints appear to differ in different complexions, but the difference is caused more through the local color that they go over, than any great alteration in themselves; when the flesh, however, is very powerful in color, the grays, etc., must be stronger than when it is delicate.

No. 2. *Middling Complexion Shadow.* — Darker than No. 1, and composed of cobalt, Indian yellow, and madder brown. These three colors produce a great number of very useful grays.

No. 3. *Dark Complexion Shadow.* — Rather warmer than No. 2, having a little more of the Indian yellow added to the cobalt and madder brown. These three tints will answer all purposes in photography. No. 1, with, or, if the paper be of a warm hue, without the yellow, forms a good serviceable gray or pearly tint, useful for all complexions. It may be necessary to remark, that yellow is not so much in request for coloring photographs as for painting on ivory or Bristol-board; the photographic paper, in itself partaking so much of a warm color, renders it less necessary.

Hair Colors. — In coloring hair, never shadow it with the local color; all the shadows must be somewhat different; and the same may be said of the high lights. Upon brown hair they partake of a purple tinge, and the shadows are in general formed with sepia, or sepia and lake; and upon some particular kind of flaxen they incline to a greenish color, which is produced by sepia. Burnt umber is most useful in brown and auburn hair;

and here, again, the sepia and lake form the best shadow colors. A good mixture for black hair is composed of sepia, indigo, and lake, or lake, indigo, and gamboge; the lights slightly inclining to a purple tint, the blue predominating. But black hair is of so many different hues, that it is impossible to give one general tint which will do for all kinds; you must be guided by nature, endeavoring to match the colors to the best of your ability. Put in the general wash broadly, and bring it into form with the shadow color; then lay on the high lights and reflects with the proper tints, mixed with Chinese white. Upon flaxen hair, you will sometimes be able to preserve them; but in consequence of the photographs being dark and heavy, you will generally have to put them on. Be very particular in keeping the hair in masses, and to assist in doing so, use a good-sized pencil to work with, and never fritter it away into little pieces, as if you had determined to show "each particular hair."

Against the background, let it be a little feathery, as it appears in nature, and do not permit it to cut into the face, as if it were glued upon it. For the purpose of assisting the beginner, a few local washes are given.

Flaxen Hair. — The best wash for flaxen hair is undoubtedly Roman ocher, which may be modified with sepia to suit the various shades. A warmer flaxen is composed of Roman ocher alone, both being shaded with Roman ocher and sepia. The high lights for the former are made of Chinese white, mixed with a delicate purple; but if the hair be of a sunny color, then use Roman ocher and white only. Always lay in the shadows first, and then put in the high lights, taking care to keep them thin, working with a bare pencil, so that the color of the hair may appear through them; and in shadowing, also use the tints thin, for the same reason. Never put any white in the shadows; they must always be transparent. Gum is occasionally added to the shadow color, to bring it out; but as it gives a meretricious effect to the work, it is better to avoid it.

Auburn Hair. — Local color, burnt umber, and sometimes burnt umber and lake, according to the particular shade. When the auburn is very warm, add a little burnt sienna to the umber and lake, shadow with burnt umber and lake, and glaze in the darkest parts with a cold purple. High lights, neutral tint and Chinese white.

Chestnut Hair. — The lights much the same as for auburn hair; local tint, burnt umber, sepia, and lake; shadow with sepia, lake, and indigo; in the darkest shadows let the indigo and lake predominate.

Red Hair. — Very red hair is a color which does not often occur, and when met with, subdue or kill it as much as possible, for few people are ambitious of possessing it.

Venetian red and lake, with a little sepia to cool them, form a very good mixture for the local tint; if it be too red, add a little gamboge or Roman ocher.

Should a lady rejoice in this colored hair, keep all blues as far

from it as you can, because their presence only helps to exaggerate its fiery appearance. Shadow with lake and burnt umber; very darkest parts, sepia and lake. High lights, a delicate purple and Chinese white.

Dark Brown Hair. — Sepia alone, or sepia and lake, or sepia and burnt umber; lights inclining to purple.

Gray Hair. — Sepia and cobalt, or sepia and indigo, made into a pale wash; indeed, any of the grays may be used, provided they are in accordance with the color intended to be represented. Gray hair is sometimes of a warm hue, and sepia is a close approximation to it; shadow with sepia.

Black Hair. — The best color for black hair is composed of sepia, indigo, and lake, or lake, indigo, and gamboge, making the red or blue predominate, as it may appear in nature. Keep the shadows of a warm brown tint, and the lights cold, inclining to neutral tint; and sometimes, when the hair is exceedingly black and heavy, the lights are laid in with light red and Chinese white, being exactly the same as the lights for black cloth.

Draperies, and other Cloth Fabrics. — In painting cloth fabrics, it will be advantageous to use the local color at first much lighter than you desire it to appear when finished, as it will permit the folds of the drapery to be discernible under it; but to render the matter as clear as possible, proceed as follows: Take, for example, a black coat to paint; begin by laying in a weak local wash as directed, and when it is dry, go over the folds with a thin shadow color, which will prevent them being

obscured by the next local wash. Having repeated this process two or three times, you will most likely find the coat to be as dark as necessary; but the shadows will be too poor and feeble. You will then strengthen them with sepia and lake; and when brought to the required depth, lay on the high lights with light red and Chinese white, remembering to use a bare pencil and a gentle hand for that purpose, for if you work your pencil about, and press heavily upon it, you will inevitably disturb the local color, and mix it with the lights. These repeated shadowings after each wash would be quite unnecessary did they not serve to retain the photographic folds intact, for if you laid on the local color at once, and as powerful as you desired, you would be almost certain of hiding them, and having them to draw in from your duplicate copy. By laying in the washes one over the other as directed, you gain a texture and evenness of tint which you could not otherwise obtain. If the photograph be bold in the shadows, and bright in the lights, there will be no necessity for going over the former after each wash. All cloth fabrics may be handled after the same manner. You must take care that these under shadowings do not become heavy; they

are only meant to save you the trouble of copying, should the local color hide them, for, as a matter of course, all shadows must be painted *upon*, and not *under*, the color on which they are projected.

A good black for gentlemen's drapery is made of indigo, lake, and gamboge, or indigo, spirit carmine, and gamboge. When you require a blue black, first make a blue purple, and then add the gamboge till the tint is changed into a black. A red black must be made of a red purple, or inclining that way. Miniature painters generally use lamp or ivory black for cloth drapery; but as both of these are body colors, they will hide the shadows of the photograph, which must be kept perfectly transparent, and finished upon with sepia and lake. The shadow tint must in all cases be used rather thin, as it is intended only partially to obscure the local color, not to hide it, which it would do if it were made powerful, besides imparting a hard, patchy appearance to the work.

In shadowing, never work across the folds, but always carry your pencil in the direction that they run, and from, not to, the outline. Your own judgment must guide you in apportioning the sepia and lake for shad-

ows; some blacks require them to be much redder than others. A camel-hair pencil is better adapted for laying in the draperies than a sable one, because the color flows from it more freely, and the markings of the tool are not perceptible.

Silks, Satins, etc. — The tints for the above are made up precisely the same way as for cloth fabrics, and must be painted in broadly, keeping the lights bright, and the shadows transparent. White is admitted sometimes into the local color for the purpose of forming the high lights; black silk and satin always excepted, which receive the same lights as black cloth, viz., light red and Chinese white.

Crimson. — Crimson is made of pure liquid carmine, modified with lake for the shadows, and sepia and lake, without the carmine, are used in the deepest shades. The high lights are a little Chinese white mixed with the local color.

Scarlet. — Scarlet vermilion and carmine make the best opaque scarlet for officers' coats, etc., shadowed with carmine and lake, and, in the darkest shades, lake and a little sepia, without the carmine. A transparent scarlet for silks etc., is made of carmine and gamboge, or carmine and Indian yellow, with gamboge, is preferable, shadowed as the opaque scarlet.

Pink. — Pink is simply carmine or lake reduced with water, or Chinese white delicately shadowed with lake. High lights, Chinese white and the local color. Rose and pink madder frequently represent this color, shadowed as the last.

Yellows are shadowed with the local color, modified with umber; but some pale yellows have a cold gray tint coming against the

lights. The lights upon all yellows are composed of the local color and Chinese white.

Orange. — Orange is made of Indian yellow and carmine or carmine and gamboge. A very good orange is produced by the union of red chrome with gamboge; but it is too heavy for silks.

Green. — Indigo and gamboge form an excellent color for cloth draperies, shadowed with the same and a little burnt umber; the darkest shades have lake and umber or lake and sepia. High lights, the local color and lemon chrome, or the latter alone on the local color and Chinese white. If the green be very yellow, the lemon chrome is the best adapted for the lights; but if it be a cold color, then use Chinese white.

Purple. — Purple tints are formed of blues and lakes, or blues and spirit carmine, and lilacs the same. The purples receive a warm shadow, composed of the local color and brown madder, and if they are very heavy, the dark shadows are brown madder and purple lake. Lilacs have similar shadows, but much lighter. High lights, the local color and Chinese white.

Blues. — Blues of every tint are shadowed with the local color and a little brown madder, and in the darkest places brown madder is only used. High lights, the local color and Chinese white.

Backgrounds. — The best colors for fair people and children are blues, purples, (not bright, but negative,) and grays. Dark complexions may have dark grounds, inclining to red or warm brown; and where the flesh tint is sallow, use warmer colors, — greens approaching to olive, — to throw up the reds in the face to advan-

tage. If the usual curtain be allowed to creep into the picture, make it a connecting color with some other analogous to it in the figure or accessories.

Never paint a bright blue ground and crimson curtain, but keep every thing quiet and subdued, so that the eye may take all in at one glance, having no light patches of color spread over the picture to dazzle and distract the gaze from the head, but let every color blend and harmonize.

The following are a few background colors which will assist the beginner in his work : —

Stone is represented by a tint formed of carmine, indigo, and yellow ocher; and the more distant you wish to make it appear, the more must the indigo prevail. If the photograph be a very white one, it will be necessary to lay a foundation of neutral tint, to support the local color.

Grays : cold and warm grays of many different hues are made with sepia and indigo. The grays which are used in the flesh, will also answer the same purpose. A background capable of many modifications is made of cobalt, burnt sienna, and a little rose madder worked into it.

Madder-brown and cobalt are well adapted for the same purpose, and form good grounds for fair subjects, and may be strengthened in the darkest places with the addition of a little indigo.

Indigo and madder-brown produce a duller gray than the former, and of more depth.

A purple, cloudy ground is made of indigo and liquid carmine or lake; be very careful not to paint it too bright.

An opaque ground, of a chocolate color, is composed of lampblack and Indian red, and may be lightened by the use of Chinese white.

Burnt umber, chrome yellow, and Chinese white produce a lighter ground than the last named.

Opaque backgrounds are far from being artistic, and are but seldom used; if very dark, they give the head and figure the appearance of having been cut out and pasted down upon colored paper. If you resort to them, you will require to soften around the outline to take off that effect, and that can only be done by adding a little white to the color. If the background of the photograph be very dark, and you are desirous to make it lighter, lay on the transparent color, and lighten them up by

stippling * some white mixed with the local tint over them, which will have the effect of relieving the head, and whatever parts of the figure you want to bring out. Very dark grounds may also be lightened by dusting some photographic powder colors over them, and they may sometimes be used on the draperies — but it must be held in remembrance, that they are not permanent.

Photographers are, however, getting into the way of producing pictures with the backgrounds entirely white, and consequently they are ready to receive whatever shade of color may be desired, and are infinitely better calculated for artistic display than those heavy grounds, which require considerable discernment on the part of the artist to understand where the outline of the hair terminates, and the background commences.

Paint curtains, etc., over the background, and put on the lights with body colors.

* *Stippling.* — Toward the end of the work you will observe a number of inequalities in the tints, caused by the square patches of color which you have laid on during the progress of hightening the carnations, grays, etc. These require to be filled up by the point of the pencil, with an assimilating color; and that filling up is termed "stippling." Be careful not to begin doing so till the work is nearly finished; for if you commence too early, you will most assuredly impart a woolly appearance to it, which is by all means to be avoided.

When white spots appear on the background of the photograph, stipple them in with a color that assimilates to it, and then proceed as usual. When the spots are black, you may take them out with a piece of glass paper, and finish as above.

Tinting Glass Positives, Daguerreotype Plates, etc. — Photographic powder colors are most frequently used for the above purpose, and they are applied to the picture in a dry state with sable pencils; camel-hair pencils being employed for softening, and bringing the work into form and character.

Begin by breathing lightly upon the surface of the portrait, and dip your pencil into the bottle containing the flesh color, and work in a circular direction, pressing gently upon the glass, to cause the color to adhere — the breathing is for the same purpose; then blow off the superfluous powder with an India-rubber bottle. As the color approaches the outline, soften it off with gray, and be careful to preserve the roundness of the cheeks and forehead which is observable in nature, by keeping the high lights in the center, and graduating the flesh tints into the grays and shadows. Next put in the darkest parts of the draperies and hair. When engaged

upon the latter, cause your pencil to move in a wavy manner, as the hair flows. The lights are to be laid in last, with the colors provided for that purpose, and be particular not to soil them with the shadow tints, keeping them as bright as possible. Proceed in the same way with all the other colors, and if the tints contained in the bottles be too powerful for your picture, you can reduce them with *white*, which bears the same relationship to powder colors that water does to the ordinary cakes. When at work, have a piece of black cloth or velvet on the reverse side, which will show up the head to advantage. The same process as the above is applicable to daguerreotype portraits and paper pictures, the breathing on the plate, and the varnishing, alone excepted.

Hitherto glass positives have only been tinted in the manner described, and which the veriest tyro in the arts may accomplish with ease. Artists have given very little attention to the subject, believing that glass pictures would never be much esteemed by the public, because they are taken upon such a brittle material; but in consequence of the increasing demand for them, and the low prices for which they can be obtained, it has

been deemed advisable to say something upon the subject; and experience shows that more can be done with them now than formerly, as they are capable of receiving a considerable amount of finish.

Having put in the general tints with powder colors, assimilating them as much as possible to the complexion, you may finish them up with cake colors, by marking out the eyes, eyebrows, mouth, nostrils, etc., taking care, however, not to run the water colors into the grays or carnations, as they must be kept intact.

These various touchings produce a sharp and spirited effect, and will give to the portrait a most decided and artistic appearance. If ornaments of gold or silver occur, they may be put in with metal.

If glass positives are varnished, which is the work of the photographer, you may use water colors upon them almost as freely as on paper; but in general all that is done to them is merely to apply a little powder color for the flesh, a touch of carnation in the cheeks, and a tint upon the hair, eye, and eyebrows.

On coloring glass positives entirely in water colors, no more need be said than what has already been urged in the case of paper pictures, the manner of working being exactly

the same, the chief difficulty which presents itself being that of getting the colors to flow smoothly; but that is easily overcome by the addition of a small quantity of ox-gall.

Oil colors may also be successfully used upon glass, provided the amateur has a competent knowledge of drawing to carry him through the work; the same objections presenting themselves here as upon paper.



ULES FOR TINTING PHOTOGRAPHS SLIGHTLY. — Having prepared the photograph in the usual way, take a little pink madder, carmine, and Indian yellow, or whatever color most resembles the carnation; lay it on the cheek, and, with a clean pencil, soften it carefully all round the edges, blending the tint into the face. Repeat the process once and again, till you have obtained nearly as much color as necessary — I say nearly as much, because you have to pass the general flesh-wash over it, which has the effect of darkening it considerably. For

the purpose of softening, it will be as well to have two pencils on one holder. It might appear that putting on the color of the cheek at once, and softening it, would suffice; but you will get it far softer by doing it with a very pale tint two or three times, than you possibly can by making it at once as powerful as necessary; besides, it is impossible to soften a strong color so well as a pale tint. When the color is quite dry, go over the whole of the face with the flesh tint, then put in the hair, eyes, eyebrows, and lips; round off the forehead with a gray, and apply the same to those parts of the face where you observe it to be in nature. If your photograph be a very dark one, you will not require so much gray in it as if it were a light impression; next wash in the background, and proceed with the draperies, etc.

Return now to the face, strengthen the carnations, grays, and shadows, by hatching * delicate tints over them; put the light in the eye and the spirited touches about it and the eyebrows, mouth, etc., and finish off the hair. In dark photographs you will require to lay the

* *Hatching* is that effect which is produced by the crossings of the pencil, after you have given to the head all the larger washes, and must be done in the manner described above. To an inexperienced eye, hatching assumes the appearance of a series of dots.

lights on the hair with body color, as it is generally much darker than it appears in nature. Make out the linen with a gray, deepening it in the darkest parts, and lay on the high lights with constant or Chinese white. Proceed next to shadow the drapery, and when you have obtained the required depth, scumble in the high lights, using a bare pencil and a very gentle hand, as before directed.

Give the background another wash, if requisite, and your photograph is finished.

If there be metal buttons, chains, or epaulets, they must be laid over the dress with body colors; a very good ground for them is red chrome and gamboge, shadowed with burnt umber, and hightened on the lights with lemon chrome and Chinese white.

By the foregoing method, it will be unnecessary to hatch or stipple a great deal, for you will find that the face will come out very soft and round without it; but the effect is far inferior to that produced by the other process.

Prepared Ox-gall. — It is necessary to have a little of the above preparation, but be sparing in your use of it. Too much of it in the colors will cause them to sink

into the paper, and there is no possibility of getting them out again, nor can you wash over the parts to any advantage. Ox-gall can only be of use in the first coloring, to kill the grease; after the photograph has been fairly covered all over, there can be little to apprehend on that point.

When the paper is greasy, and you find a difficulty in getting a tint to run smoothly, rub the point of your pencil on the gall, and mix it up in the color.

Painting Photographs in Oil. — To meet the wishes of those who are anxious to obtain an insight into the process of painting photographs in oil, the following directions are offered: Care has been taken to render them plain, concise, and as general in their application as possible. But it must be remembered that the art of painting is not to be acquired even from the best treatises, by the most accomplished masters, while, in this trifling sketch, all that is sought to be conveyed is to initiate the tyro into a method.

A few lessons by an experienced hand, and assiduous study on the student's part, will, in a short time, do more than twenty books could accomplish.

REQUISITES FOR OIL PAINTING.

A BOX OF TUBE COLORS CONTAINING, —

White,
Naples Yellow,
Yellow Ocher,
Brown Ocher,
Raw Sienna,
Burnt Sienna,
Light Red,
Venetian Red,
Vermilion,
Indian Red,
Purple Lake,
Crimson Lake,
Rose Madder,
Ultramarine,
Cobalt,
Prussian Blue,
Purple Madder,
Raw Umber,
Burnt Umber,
Vandyke Brown,
Terre Verte,
Emerald Green,
Ivory Black,
Palette and Knife,
Sables,
Softeners,
Pale Drying Oil,
Mastic,
Megilp,
Turpentine,
Poppy Oil.

How to prepare the Photograph. — Get some size, and melt it in a dish over a slow fire; when it is dissolved, strain it through flannel into a soup plate, and immerse the photograph in it. When it is sufficiently saturated with the size, take it out and let it dry, then paste it down on card-board, and it is ready for use. Another method: Dip a flat camel-hair tool into the size, and go

over both sides of the photograph. If it be insufficiently prepared, the colors will sink in those parts where there is a paucity of size, and you must give it another coat.

Oil Colors. — The following is a table of tints in very general use with artists; but it must, however, be clearly understood that they are capable of many modifications to meet almost every variety of color observable in nature. Portraits of ladies, but children more especially, require the tints for the first and subsequent paintings to be kept exceedingly delicate and pearly; for the adult male head the colors must be more powerful.

TABLE OF TINTS FOR THE FIRST PAINTING.

FLESH.

White and Light Red.
White, Naples Yellow, and Vermilion.
White and Naples Yellow.
White, Vermilion, and Light Red.

Gray, Pearly, and Half Tints.

White, Vermilion, and Black.
White and Terre Verte.
White, Black, Indian Red, and Raw Umber.

Deep Shades.

Light Red and Raw Umber.
Indian Red, Lake, and Black.

Carnations.

White and Indian Red, (powerful color.)
White and Rose Madder.
White and Lake.

HAIR.

Light Hair.

White and Yellow Ocher.
White and Roman Ocher.
White and Vandyke Brown, for the dark parts.
White and Raw Umber for the dark parts.

Dark Brown Hair.

Raw and Burnt Umber.
White and Raw Umber.
White, Vandyke Brown.

First Painting. — Lay out the palette in the following order: Place the lightest flesh tints nearest the right hand; next in succession those having more color in them; then the middle and shade tints; and lastly, the pure colors. Use megilp * as a vehicle, if you wish to paint thinly, and add a little turpentine to it.

Begin by laying on the high lights, gradually descending into the more florid parts, till you arrive at the middle tones, which in their turn descend into the shadows. Lay the color on the lights of some consistency, but let the shadows be thin.

Be careful not to work the lights about with your brush, but lay them on boldly and full. Put in a gray tint for the white of the eye, and paint the iris and pupil upon it. Take a warm shade color, and mark out the features, and lay in the lips with a tint considerably

* Megilp is composed of drying oil and mastic varnish; stir gently together till they incorporate, and let the mixture remain until it becomes thick.

under nature; indeed, it is necessary to force up the whole of the coloring to allow for it sinking in drying. Proceed to the hair and eyebrows, lay in the shades, and after them the lights, define the draperies in the like way, and rub in the background, beginning with the lightest part. When you have got on thus far, take a softener — a badger's hair tool — and go gently over the whole of the face to round it, and make the various tints blend into, and unite with, each other.

Second Painting. — Having allowed the picture ten or twelve hours to dry, the next operation will be preparing it for the second painting.

Take a sponge * moderately charged with water, and go gently over all the work; when it is dry, dip a brush in poppy oil, and again go over the surface; then wipe off the superfluous oil with a piece of soft silk as gently as you applied it. This is termed "oiling out," and is done that the subsequent paintings may unite with the first. Nevertheless, it is frequently omitted; but washing with the sponge cannot be dispensed with, for without it, the glazes will not lie, but curdle on the picture.

* Breathe upon the surface of the picture. If it becomes dull or misty, you may safely use the sponge; but if the breath does not affect it, do not go on — it is not dry enough.

TABLE OF TINTS FOR THE SECOND AND THIRD PAINTING.*

High Lights. — White and Naples yellow.

Carnations. — Rose madder and white. Indian red, rose madder, and white.

Green Tints. — White and ultramarine with any of the yellows. White and terre verte, with the addition of a little raw umber. The above green tints may be converted into green grays.

Gray Tints. — Ultramarine, light red, and white. Indian red, lake, black, and white. White, ultramarine, Indian red, and raw umber.

Purple Tints. — Any of the lakes, or red madders, with ultramarine and white.

Powerful Shadow Tints. — Indian red, purple lake, and black. Indian red, raw umber, and black.

Strong Glazing Colors. — Light red and lake. Brown madder. Vandyke brown, Indian red, and lake asphaltum.

Proceed now to improve the lights, yellows, and florid tones, with tints that approach your model; then glaze the shadows where they are wanting in depth and color.

The alterations, which at this stage are necessary, should be made with the shade tint, your own judgment guiding you to the requisite depth of color for that purpose. Look carefully over all the photograph,

* These and the following tints might be increased almost *ad infinitum*; but it is better to present only a few to the learner, as a great number would only serve to bewilder him.

and put in some of the spirited touches about the eyes, mouth, etc. Then improve the gray and pearly tints, (those about the mouth and eyes require very delicate handling,) and blend them into their proximate colors with a softener. Next look to the reflexes, which are to be painted, if possible, without any white in them. Soften the outline of the head with the background, so as to take off every appearance of hardness, remembering that there should be no such thing as a sharp outline in the face; a glance at a plain photograph will at once show this to you. The lines of the eyes, mouth, and nostrils must also be carefully blended; but they must not be rendered too soft, or they will impart an air of insipidity to the countenance.

Third Painting. — Having proceeded thus far, it will be necessary to sponge the picture again. Scumble over the lights again where necessary, improve still further the luminous tints, and look to the glazing and reflexes. In finishing the carnations, as little white as possible should enter into their composition; and they, together with the lights, should be laid on with a fine pencil, and a quick and decided touch, keeping them pure from the preceding colors. Soften all the parts which appear

crude or hard, and finish off the background and draperies. The hands require a flesh tint similar to the face, and the same gray and pearly tints are used for them. If extreme finish be aimed at, you may retouch your work several times, allowing it to dry between every retouching.

Draperies. — The scale of colors is nearly the same as for water; but, instead of gamboge, yellow ocher and ocher yellows are used, and Prussian blue is taken for indigo.

The shades, being laid in, are met by the half tones and lights, and are blended with a softener. The shadows are then finished by glazing, and the lights by scumbling over them.

Background Colors. *Pearly.* — White, vermilion, and blue. White, vermilion, and black. White and black.

Gray. — White, Venetian red, and black.

Yellow. — Yellow ochre and white.

Olive. — Yellow ocher, terre verte, and umber.

Stone. — Raw umber and yellow. Black, white, and raw umber.

Sky. — French blue and white, French blue, vermilion, and white.

Edges of Clouds. — Yellow ocher and white.

Clouds. Indian red, lake, black, and white. Brown madder, French blue, and white.

Oriental Painting.



AY the glass, cut to the form you require, on a smooth table, with the design underneath, usually flowers, birds, and frequently, when wanted for a table stand, forms for chess playing are used, gilt, etc. Then take a fine badger, or camel's hair pencil, and with the color you would have the ground when done, trace the outline of each figure not joined by another color; such must be traced with the color you

would have the figure; as, green, if a leaf or stem; for rose or flower, the color of the rose or flower. After this has been traced out as perfectly as possible, shade the leaves by laying thicker coats when you would have it darker. This will be easy, as you have only to follow the pattern. Also make the veins with a darker shade, tipping the edge with the same. A little practice will show where effect can best be obtained. Now put on your ground, which should be composed of fine white picture varnish, or, what is better, our Outside varnish, colored with any dry or tube oil colors. If black, lamp-black may be used; it should be well ground. After this is thoroughly dry, lay on and confine with this same mixture, tin foil, or tinsel, either smooth or crimpled. Pearl is frequently used in the Oriental style; yet a person well practiced can imitate it perfectly with the foil, which is much cheaper. Cover the whole with black, or very dark cambric, confined with the same mixture.

The colors used must be transparent, or nearly so; oil tube colors will answer, or powders mixed well with Outside varnish. The lakes are all transparent, emerald green, raw and burnt sienna, and others which any artist colorman will inform you when buying your colors.

We have published, for Oriental painting, two fine copies; one, a handsome wreath, with fountain, birds, etc.; the other, an elegant vase of flowers, with birds' nests, birds, butterflies, etc.; price, eighty cents the pair, post-paid, on a roller, to any address. Also, two smaller ones, that will combine with the vase and wreath to make innumerable combinations, or may be used separately; price, thirty cents the pair; or we will send the four on one roll for one dollar, post-paid. A fine copy for chess tables has just been added to the list, the design of which is very beautiful; price, sixty cents.

For gold lines, etc., draw with the varnish, as if paint, and when dry to a tack, lay on gold leaf, or rub on gold bronze of any color. If bronze is used, apply as soon as varnished. Gold work, in most cases, should be left till the last.

The publishers of this book have put up, under their personal observation, boxes of dry colors, assorted colors in bottles, suitable for Oriental painting, which they send by mail for one dollar. This method has proved very satisfactory.

Prof. Day's Method. — Oriental painting on glass

is so called from its capability of producing effects of coloring equal to the colors of Oriental flowers, and the plumage of Oriental birds. This beautiful, showy, and gorgeous style of painting never fails to attract admirers wherever it has been introduced. No style of painting has yet been invented that shows transparent colors to such advantage as this, when properly and carefully done. If the purest transparent colors are to be used, and mixed with the lightest varnish, and the lights and shades of the flowers carefully attended to, and any light body (even paper) put at the back of the glass, the painting will show with good effect; but when the brilliancy of the color is reflected back by means of the brightly planished silver foil, every shade of tone is made to yield its otherwise concealed beauty, making this style of painting well adapted to reflect the many splendid colors nature has in store for the admirer of flowers and showy plumage of birds.

Directions. — Procure ten thimbles, large size and long; ten buttons to fit on the top; a piece of wood ten inches long, two wide, one thick; bore ten holes in it in which to fit the thimbles. A *paint stand* can be made of tin, or in a box, or in any other way that will suggest itself to the convenience and ingenuity of the artist. A ground glass slab, from six to eight inches

square, on which to mix the colors; a palette knife, four inch blade, (rather stiff is preferable; it mixes up the color better;) a bottle of copal varnish, and one of turpentine; set of mixing colors; all of which may be had from the publishers of this work.

To commence a picture, procure a glass the size you wish, then get a clear outline drawing on white paper, and fit it on your glass; next prepare a little lampblack (lampblack is not down in the list of colors, because it is readily procured) by mixing it on your glass slab with copal varnish, using sufficient varnish to make a semi-transparent or neutral color, thinning it a little with turpentine if necessary, and put it into one of the thimbles. Take a crow quill brush, with hairs about five eighths of an inch long, and with the neutral black trace every line, and mark off your drawing on the glass. This is a long and tedious affair, if the design is large and complicated, and to look well requires to be done neatly. Next, all the little stems, and fine tracery work of weeds, etc., that is sometimes introduced to take off the crowded appearance of a group of flowers; pencil in with opaque green made of chrome yellow and a little Prussian blue, (directions for mixing are on an advance page;) sometimes a little bronze is introduced in the same way for variety; for this, mix a little bronze with copal varnish, put it on with the same brush as you used for the green work and outlining; sometimes a dot of scarlet mixed with varnish is put on, or pale blue, made of white and blue. This being done, see that the glass is free from finger marks, and commence the groundwork with lampblack mixed with copal varnish, going carefully around the design, avoiding all the parts you wish to paint with transparent colors; the small work done with the opaque colors can be gone over with the black. When you have gone over it once, hold it up

to the light, and you will perceive it full of places not sufficiently covered; touch all such again, to make it perfectly solid. When all this is done, it is ready for the transparent colors on the flowers, which are, of course, varied according to the design. To make scarlet flowers: coat over the flowers about three times with pure yellow lake, then once or twice with crimson lake, according to the intensity of the shade; make the deeper shades by adding a little blue in the crimson lake. Yellow flowers: paint with a weak shade of yellow lake, and the shades by adding a very little burnt sienna with it. Blue flowers: use light blue; and for the deep shades add a little Prussian blue. Purple flowers: purple made of crimson lake and Prussian blue, according to the tint required; a very delicate purple is obtained by mixing rose pink and a little light blue. Pink roses and geraniums: use rose pink, and for the deeper shades add a little crimson lake. White flowers: use a neutral on the shaded parts composed of a little Vandyke brown and a little blue, diluted with varnish to suit the tint required; the high lights of white flowers are left clear glass, and sometimes for small flowers a little opaque white is introduced on the high lights to imitate pearl. Real pearl is often put on; but this will be referred to again. Stamens of flowers are done with Vandyke brown; anthers sometimes with chrome yellow and a little burnt sienna mixed with them, and sometimes yellow lake, dotted with burnt sienna. Green leaves are stained with transparent green, made with yellow lake and Prussian blue; a good deal of yellow lake if a yellow green is required, and not so much if a cold blue green is wanted. Autumnal greens: add a little burnt sienna. The leaves are painted over two or three times in the parts that are wanted darker, also the deep shades against flowers, where the leaf goes under a flower. Use a little Vandyke brown with the green. When the painting is finished, it is better to allow

it to remain a few days before putting on the foil. When it is sufficiently dry, if you wish to introduce any pearl, select the white flowers, because there is a portion of the glass left clear, and the pearl shows to advantage. The pearl must be cut pretty near the shape of the flower, and two or three dots of clear varnish put on; then it is to be fitted to the flower, and left for a few hours to dry. Sometimes it is well to put a weight on, then fix on the foil and fasten it with black putty, or some of your black that is left from your coating. Cover the entire piece with a board, and let it remain a few hours; or if you are going to frame it, put it immediately in the frame, and the back board will keep it in its place; or if it is a table, the back of the table will answer the same purpose; if neither, take a strong piece of brown paper and cover it, pasting carefully round the edges, and make it stick fast.

Observations. — Be sure that the glass is well cleaned before beginning. All fine stems, and fine work that is intended to be done with opaque color or bronze, has no occasion to be touched in the outlining.

Directions for mixing Colors. — Be careful to have the glass slab clean and free from dust — also the palette knife; then put on the glass as much of the powder color as you think you may want; put enough copal or outside varnish to it to make it absorb all the color and flow easily, and mix by moving it round and round, with a little pressure upon it, so as to make fine all the little color particles that are visible; occasionally add turpentine to thin it, and mix again. When it is sufficiently fine, put it into one of the thimbles. All the colors are mixed in the same way. If you are to use most or all of the transparent colors at one sitting, the best plan will be to mix them as follows: yellow lake first, then burnt sienna, then Vandyke brown. These three colors, if mixed in this order, can be mixed without cleaning the glass,

because the yellow lake which would remain on the glass after scraping it up to put in the thimble would not injure the sienna, nor would the sienna injure Vandyke brown. The glass must be thoroughly cleaned for rose pink; then mix crimson lake; then clean your glass for light blue, then Prussian blue. When you mix white, the glass must be rubbed until it is perfectly clean. Chrome yellow can be mixed after white without cleaning. In mixing yellow lake, rose pink, crimson lake, and white, the glass must be as clean as if color had never been upon it. This can easily be done by rubbing it with turpentine and a clean rag. We are particular in detailing this, and in trying to impress upon the artist the necessity of having all the colors *pure*, especially the four colors named above; likewise to have them well mixed, free from all particles of color. All this must be strictly attended to, in order that the painting may look well. Some colors require more varnish than others. Yellow lake, rose pink, blue, and crimson lake require about the same; the three opaque colors, chrome yellow, white, and scarlet, a little more; Vandyke brown, sienna, and Prussian blue require still more. Prussian blue and crimson lake are the most difficult colors to mix, and more time for mixing should be allowed.

In the absence of a glass slab, a clean white china plate — as smooth a one as can be chosen — is a very good substitute. Nine of the thimbles are now occupied. In the tenth put in some clear varnish, as it is useful and convenient to dip your brush in when you wish to reduce any shade — that is, make it lighter. It is not necessary to have a thimble for green, as there is so little used; you can make it from the thimbles as you require it. In painting, when a light shade is required, use a little more varnish with your color; and when your color becomes thick, always thin it with

turpentine. By attending to these two remarks, much trouble will be saved, as the evaporation of the turpentine is continually going on, and the paint gradually becomes too thick for use. After painting, if you do not wish your thimbles again for some time, put a drop of clean turpentine on each color, then carefully press the buttons on so as to exclude the air. Thus the colors will keep good for several days. The black for the groundwork is made of lampblack mixed with copal or Outside varnish, and had better be put in something larger than a thimble, as so much of it is used. (It can be had of the publishers of this work at twenty-five cents per bottle.) Lampblack is a common color, and may be purchased any where; or you can make it yourself, by lighting a common oil lamp, make it smoke well, put a tin shade over it, and the collected particles on the shade make the best lampblack.

For variety, Oriental painting is sometimes grounded with white, or other light tints, similar to those enumerated in Potichomania. In doing these, much greater care is requisite, owing to the delicate grounding; and, instead of outlining with the neutral tints, it is better to outline with burnt sienna. Greater care is likewise necessary in cleaning the glass, as any finger mark will show, when coated with white. Foil is sometimes wrinkled or crumpled between the fingers very much, before applying it. We prefer to use it plain.

Sometimes leaf gold is introduced. To do this, a size must be made of isinglass; a very weak solution is sufficient — about one inch strip of common isinglass to a teacup of hot water; when thoroughly dissolved, strain and use it cold. The part you design to gild must be floated with this water; then get a "gilder's tip," (a technical term for a long, thin-haired, flat brush;) have your leaf gold all ready; draw the tip down between your hand and

cheek, for the purpose of giving to the tip a little electric heat, which causes the leaf gold to be slightly attracted; when on the tip, you can place it readily where you please. When you have applied all the gold you wish, slightly elevate your picture to let the water drain off, and when completely dry, you can remove any part you do not wish to have gilded, with a little moisture. That which you wish to remain, you can paint over with black; or, if you wish the gold to show on both sides, as is sometimes required in other gilding, such as lettering, you may then varnish it with clear Outside varnish. Some persons object to the foil at the back of the Oriental, thinking it too glaring. This glare can be obviated by means of the gold. For this process, when your painting is quite finished, float it well with the isinglass size, and use pale gold by means of the tip. It has a very good effect, and shows the transparent colors to good advantage, but not so brilliant as the foil.

How to paint the new Pattern for a Chess Table. — This has been made to use either as a square or round. The squares had better be finished first, and a very pretty way to do this is to draw with gold size the lines around outside of the squares, and also around each square, very fine, with a hair pencil, and after it has dried about twelve hours, lay on gold leaf, as directed for gilding: first press, then rub off with a cotton ball the superfluous gold, or, if you choose, draw the lines with the Outside or copal varnish, and apply fine gold bronze directly. The squares may then be filled in with opaque

colors — say vermilion and black, or black and white, or as fancy may direct, or the squares may be laid in gold and silver bronze. The light squares may be fixed to imitate pearl, as directed before; in fact, there are innumerable ways to complete even these simple squares. Now you should draw the line in the same way as directed for the squares around the circle; and if you use the pattern as a square, make the lines about the outside of the whole, as seen in the design; these lines may be gilded or silvered like the others, or varnished. It will improve the whole to draw very finely a black line outside of these last, after the gold or silver is dry.

The beautiful designs used to fill up the blanks may be finished in the antique style, (see proper page,) which would be very fine and more simple; or they may be painted in the Oriental style, as the other. If in the Antique style, cut out the part as curved carefully, and prepare one part at a time, using great care not to rub through on the light parts. If you conclude on Oriental method, paint as follows: —

The cottage and landscape at the top we need hardly speak of, as even a common artist knows the colors that will be best. Draw the lines as we have directed

before for the outlines, then shade by laying more coats of the colors used for darker tints, placing the pearl or foil under, and fixing the whole. It will be well to experiment on another piece of glass first, so as to be sure you are right as to colors, and not to injure your other work. The parrot and peacock will look beautifully, admitting the brilliant colors which nature allows them, touched as your pattern directs, which is shaded to give lights and shades natural to the colors used. For the race at the bottom we would give the same simple directions as for the cottage, etc., at the top. Draw in the outlines, and shade neatly, covering all with the foil.

The scrolls in the corners, if you use the whole as a square instead of a round, should be drawn in with black for the darkest parts, and shaded with sienna and yellow lake, the white parts left till the last, when they should be gilded as directed for the squares. After this is dry, cover with a background, and the color of the tint on the patten will be rich and pretty.

Another fine Way to use this Chess Patten. — Have a small table made of the proper size, and varnish the top several times after each drying, rubbing well with fine sand paper to get a good surface, or, have the table finished at

the cabinet shop; then you will only have to polish it well for use. Now varnish with the Antique varnish, and treat as directed in the Antique painting; rub off all the paper, leaving the print only; do this carefully, as if on the glass. Touch up with proper colors, bronze and varnish over the whole with Outside varnish or best copal, and you will have a splendid piece of furniture, the beauty of which depends on the care and skill of the artist.

Another beautiful way is to do the whole in the Grecian style, touching up on the face with bright colors, bronze, etc.; glue or paste to the table or board, and varnish and finish.

The paper is prepared and the drawing made for all these styles, and many others will suggest themselves to the ingenious.

A new Way of painting on Rice Paper. — Make the outline with a dark lead pencil, on clear and perfect white paper, the same as for Oriental painting; place the rice paper on the top of it, and proceed to paint with the transparent colors mixed with varnish in the same manner as for Oriental: opaque colors can also be used. No difficulty will be found in painting on rice paper with the

varnish colors, and the paper will not wrinkle as it does with water colors.

The inventive mind and the imagination of the artist will suggest many pleasing combinations of the Oriental studies published by us. For instance, the fountain can be taken out from the center of the wreath, and the basket of flowers substituted in its place. Practice of this kind is fine exercise, stimulating the inventive faculties, and giving the artist a happy facility in different styles of ornamental work. In our limited space, we can only give hints, without entering into the minute details. But from the principles laid down, the apt scholar will easily make pleasing progress.

Painting on Glass.

Magic Lantern.



PLACE the glass upon whatever you wish to paint, whether a colored design or only a sketch, and outline with your fine brush and neutral black in the same manner as for Oriental, and paint them in with your transparent colors, the same as used in Oriental painting. If it is a landscape, make the distant mountains (if any) with a pale shade of blue and crimson lake; at a later painting add a

little yellow lake, and repeat with these three colors in different proportions until the effect required is produced. Paint the foliage with yellow lake and a little blue. For autumnal foliage, add a little burnt sienna; stems of trees, Vandyke brown and burnt sienna; flesh tints make with yellow lake, crimson lake, and burnt sienna, reduced very much with varnish. The coloring generally must be painted strong, as it is to be magnified very much when exhibited on the disk. Paint the clouds pale blue, and dab the paint, while wet, with a bit of cotton rolled into a light ball. This process, if done with care, has a very soft, fleecy effect.

Painting on Ground Glass.



THIS is a very useful style of painting, as articles of every-day need can be made beautiful and artistic, such as lamp shades, glass doors, vases, and in fact any thing for which ground glass is used. The same transparent colors are used that have already been mentioned, mixed with varnish. Commence with making a very faint outline with a hard lead pencil, drawing out the

design you wish to paint; then proceed to paint the flowers or birds in precisely the same way as laid down for Oriental painting. Be careful, in this style, not to have any of the outline visible. Landscapes can be done with very good effect on ground glass by proceeding according to the method of bronze painting. All the difference is painting on ground glass instead of bronze ground. Wreaths of flowers around globe shades for gas or solar lamps look very well.



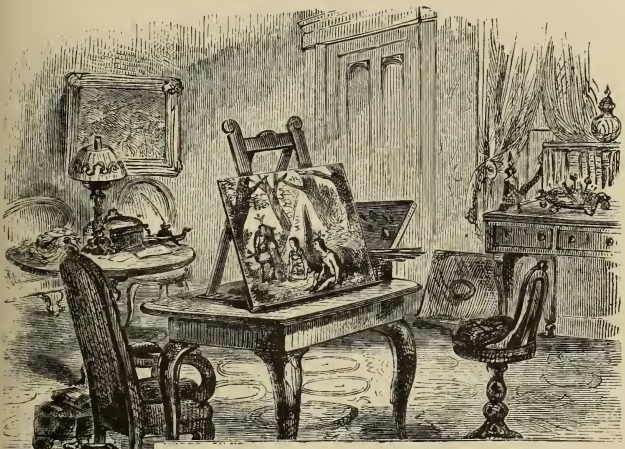
MANY small signs are now done in the Oriental style. For this method, make a clear and correct outline of the letters, if you are not familiar with printing or lettering; then reverse it. This can be best done by placing it against the window, and marking over all the letters clearly and distinctly on the wrong side. Now fit the glass on this side of your paper, and commence marking out the letters with black. (Supposing it to be for a black ground, your paint can in this case either be mixed with varnish, as in Oriental, or oil paints.) After they are all marked out, fill in the remaining part of the uncovered glass. When the black is sufficiently dry, you can fasten on the pearl, or the silver foil, in the

same manner as for the Oriental. If it is desired to have the foil wrinkled, rub it between the hands to crumple it. Sometimes the letters are partially *scumbled;* that is, opaque color, reduced with megilp, and shaded on; sometimes stained with the different transparent colors, the same as in painting the flowers in Oriental work; then put on the foil.

If other tints of grounding, more delicate than black, are desired, consult the tints we have given for Potichomania; any of these will do, always observing that the letters must be outlined with the same tint. Signs in this style can likewise be done in the antique transfer method, with open letters. After the paper is removed, coat over with the grounding preferred, and apply the silver foil.

Gilding for Signs. — Gilding for out-door work requires a stronger size than for other gilding; the size for this is best made of drying oil, the old and fat being the best; chrome yellow or white lead mixed with it, sufficient to color it and give it a little more body. We have a fine article at seventy-five cents per bottle. It will take from twelve to twenty-four hours to dry, according to the weather, before it is ready for the leaf gold.

Antique Painting on Glass.

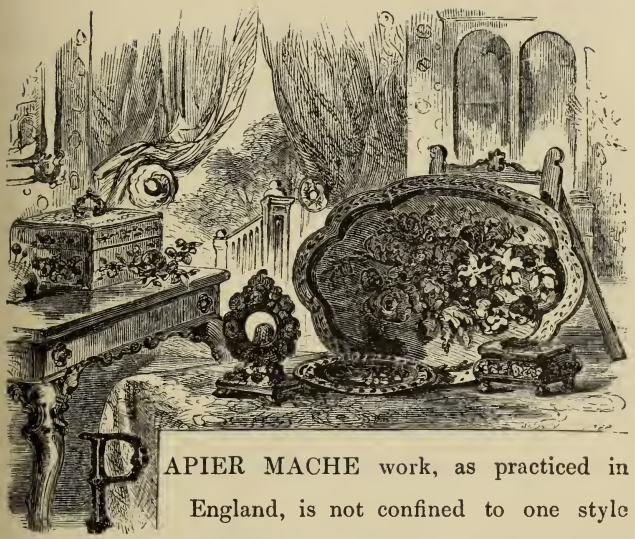


PROCURE the first quality of German or French glass, (cut quarter of an inch larger all round than the picture, to allow for framing,) and make it perfectly clean; apply with a stiff brush a very thin coat of Antique varnish,*

* The *Antique Varnish* is made only by us, and will have our name on each bottle. Any not so labeled is an *imitation*, and probably *worthless*. It can be had of us, or at any artists' material store.

which will be thoroughly dry in six hours. Then apply another coat of the same, thin and very equal and smooth; allow this to dry about one hour, until nearly dry, strongly adhering to the finger when touched, but not sticky. Then put on the engraving, (having damped it thoroughly with warm water, not too wet, absorbing the extra moisture with a cloth or blotting paper,) with the face to the varnish side of the glass; press it gently until every part adheres to the surface; rub carefully with the finger a part of the paper, being sure not to rub through the engraving. After it has dried twelve hours, wet again, and rub off all the paper, leaving only the engraving. When again dry, moisten carefully with fine bleached drying oil. It is then ready for painting. The colors will strike through very freely, as there is no paper left, and will not spot as the Grecian is liable to do. Do not use any turpentine in this style. The directions are the same as for Grecian painting, except more pains should be taken to shade and blend in the colors, to help the shading in the engraving, particularly the flesh color with the hair. It will be found that fine transparencies may be made as above. The glass, after it is prepared for painting, resembles ground glass.

Papier Mache.



PAPIER MACHE work, as practiced in England, is not confined to one style of painting, but combines oil, varnish, transfer, Oriental, bronze, gilding, raising, enamel, pearling, and others. We propose to treat each one under a separate head, so as to be better understood.

Papier mache painting dates its origin from the Chinese method of bronzing and gilding on lacquered ware

but has undergone so many changes and improvements, that in some branches bronze and gilding have little or nothing to do with it, and a complete change has taken place. Flower painting with varnish colors has been introduced with splendid effect; birds, with a gorgeous array of brilliant plumage, contributing to make the style attractive. An impetus was given to papier mache manufacturers as a good remunerative trade; the ornamental department had to keep pace with it; superior artistic talent was called for, and in this splendid and superb work the artist had another avenue opened for his skill. A new style of bronze painting, with landscape designs, was introduced, and combination designs of landscape, flowers, and birds soon found their way to the public eye. Papier mache, (when well made,) being a compact, unyielding body, capable of being wrought by skillful workmen into a variety of useful and ornamental articles, soon found its way into general favor, until it may be said that no boudoir or drawing room is fashionably furnished without papier mache holding a perspicuous situation, to reflect the taste of the proprietor.

We do not intend to give a minute description of the

method of manufacture — it would be foreign to our purpose; but as we are to write pretty fully concerning the ornamentation, we will give a theoretical glance at it. There are two ways of making it; one, making it with sheets of paper; the other, with pulp, as the name implies. To make the sheet, absorbent paper is employed, and the sheets pasted together with a paste composed of flour and glue, upon moulds of the required shape, then put into stoves, or hot rooms, as they are called, heated to about 200° Farenheit, or more; when dry, they are taken from the moulds and steeped in oil, and allowed to absorb as much as they will take, and put again into the hot room; let them remain there until perfectly dry; then the fabric is ready to be *dressed*, as the technical term is — in other words, it is worked by cabinet makers like wood, and wrought into the required shapes; then coated with black varnish, or varnish paint, the color desired; hardened again in a hot room of about 150° Fahrenheit, then rubbed smooth with pumice sand and polished with rottenstone. In the other way, the paper is reduced to a pulp with water; the water strained from it when the paper is sufficiently soft, and paste and glue mixed with it; the pulp is then ready

to put into moulds, with great pressure, hardened, and finished off in various ways.

The flower painting on papier mache is frequently called *enamel painting*. The style of painting when acquired can as readily be painted on prepared wood, iron, tin, paper, etc., as papier mache. The colors to be used are precisely the same as those enumerated for the *Oriental*, and are mixed in the same way. To commence a painting, make a correct outline of the picture on thin white paper, rub some of your white powder all over the back of it, and trace the design on your picture with the end of one of your pencil sticks cut to a sharp point; when you have carefully traced in all the design, remove the paper, and you have your picture drawn out, transferred, as it were. Now, with your white mixed according to directions in another page, coat over *all* the flowers (retaining the shape) thinly with white, and by the time you have finished the last one the first will be dry enough for another coat. Each flower should have three coats of white to make it solid. The flowers that are intended for yellow should now be coated over once entirely with chrome yellow, and the scarlet flowers once over with the opaque scarlet; the leaves must next be penciled in with opaque green made with chrome yellow, a little white, and some Prussian blue; go over the whole with a middle tint first; then use more white and yellow, and put on some lighter tints where you wish the lights to be. For stems and fine work use the same colors. Transparent colors are next to be ready, and it is better in this stage of the painting to allow a day to intervene before proceeding further. Paint pink roses and geraniums with rose pink; the darker shades with crimson lake; dark red flowers with crimson lake; for darker shades, use a little blue with the crimson lake. For blue flowers

use light blue in the light shades, and finish the darker parts by adding a little of the Prussian blue; for delicate purple flowers use rose pink and a little light blue; for stronger and darker purples, use crimson lake and Prussian blue; for yellow flowers, use a pale shade of burnt sienna; for scarlet, use crimson lake in different degrees of strength; for the darker shades it will be requisite to use the full strength of the crimson lake, and for still darker add the least touch of blue; white flowers must be shaded delicately with neutral tint made of yellow lake, crimson lake, and blue, weakened very much with varnish; or another neutral is made with Vandyke brown and light blue, likewise weakened very much with varnish. The shades of all the flowers must be repeated until finished to suit the eye. The green leaves come next. They are coated over partially with transparent green made with yellow lake and Prussian blue; the shades are varied and repeated according to the tints required. If a yellowish green, the yellow lake must predominate; if a cooler and bluer green, use a little more blue; for autumnal leaves, or withered ones, use burnt sienna and a little crimson lake, and a little yellow lake if requisite. Some few darker shades will be required on some parts of the leaves, especially those that are underneath the flowers. To obtain this, use a little Vandyke brown and Prussian blue. The leaves are now ready for the veins; do these with Vandyke brown and a little crimson lake with it; the stamens to the flowers are painted in with the same color; the anthers do in with chrome yellow, and dot them with burnt sienna; the green leaves are finished by touching the veins with a faint outline, here and there, with chrome yellow against the veins already on. The flowers are all finished with this exception; some of them, especially the pink ones, may want a slight tinge of neutral (very pale) just against the edges, to soften them a little; and a little white,

weakened with varnish, may be used to advantage just at the edges of flowers; it materially helps to break any little abruptness or harshness.

The painting is now finished, and should remain a week or more to dry before varnishing. The two sized brushes used for this kind of painting are a crow quill with the hair about five eighths of an inch long, and a duck quill about half an inch long.

To succeed well in *Enamel painting*, we would advise the pupil to practice with the brush and indian ink, the following figures.



In making the first figure, you press the brush on your paper, draw it along a little gradually, decreasing the pressure until it terminates in a fine point; a few pages should be carefully made

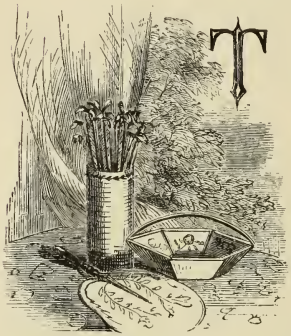
of *that one figure*. The second is produced in the same manner, with one inclining to the right and one to the left; make at least a page of these. The third figure is made of the same marks repeated, and brought close to each other. The fourth is the



same. The fifth is the third and fourth combined, and is the way to form leaves. The sixth commences with the brush just touching, then gradually pressing down a little, and tapering off again with light pressure. The seventh is the same but very small. These figures, when well practiced, greatly facilitate the free ma-

nipulation of all the first coating of Enamel painting. They can be practiced with India ink, or any common paints, as the object is simply to train the hand. The brush should be held nearly upright; by so doing you have more command than when it is at an angle suitable for writing. A variety of forms will suggest themselves to the artist.

Bronzing.

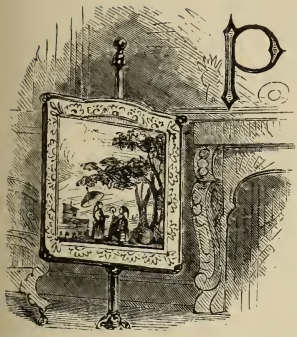


TO prepare paper board for bronzing: Coat it over with a strong solution of size made by dissolving isinglass in hot water; strain it, and coat over the paper with a flat camel's hair brush while the size is warm.

When it is dry, coat it over thinly and evenly with gold size; let it remain until it feels sticky; then apply the powder bronze with a dry, soft brush.

To bronze metal plates, papier mache, and prepared wood boards: Have a smooth surface, coat it evenly, thoroughly, and thinly with gold size, using a flat camel's hair brush, (be sure it is clean and free from dust,) and be careful to cover every part. Allow it to dry until it feels sticky; then apply the bronzes with a soft and dry camel's hair brush. When you have covered it with bronze, by warming the article, and applying more bronze while it is warm, the bronze can be made much more solid, as warming brings back the sticky property of the gold size, and causes more bronze to adhere to it.

Bronze Painting.



PROCEED to bronze according to the directions under the head of Bronzing, only you can introduce a variety of shades of bronze, if you wish. We invariably use three, if not more, viz., pale, blush, and white. Blend them together to suit your subject, and allow a couple of days to elapse before commencing to paint, so that it may dry. We will suppose it is a landscape, with mountains in the distance, water mid-distance, and foliage and building and figures in the foreground. Make a correct drawing of what you want, on thin white paper, rub some white on the back of it, fit it upon your picture, and mark over with the sharp end of a pencil stick, pressing on very lightly; after all is drawn in, remove your sketch, and faintly mark over the lines with a lead pencil. If you are copying from an engraving, observe on what part of the building the light strikes, and select those parts for gold, coating them over with gold size, and putting on the leaf gold when sufficiently dry, (according to the directions already given.) If there are any parts of your figure (such as rich dresses) which you want rich color, do them at the same time with gold. The painting must now be wiped with a clean silk handkerchief, to remove all the bits of gold and dust; and supposing that the thimble palette is ready, with all the colors mixed, according to the directions previously given, we first mix a pale tint of purple, made with Prussian blue and a little crimson lake, and pencil over the moun-

tains evenly, then go over the water with a very pale shade of blue. After coating the mountains and water once, it is better not to touch them again until they are dry. Now paint in the foliage, making the tints with yellow lake and Prussian blue; if you want them bright, for the different shades add burnt sienna, or Vandyke brown, or both, as your tints require. Stems of trees are mostly done with Vandyke brown, and other tints added to suit the eye; faces of figures do with white and a little sienna mixed together; white drapery coat over with white, scarlet with scarlet, and yellow with chrome yellow; all other parts of figures with white, except the parts you have already gilded. This will suffice for the first painting. The second shade upon the mountains is made with a neutral composed of the three primitive colors, viz., crimson lake, yellow lake, and Prussian blue. The *tone* that you desire must predominate in making all your neutrals; for instance, if you want a bluish neutral, the blue must predominate; if you want a greenish, the yellow lake must predominate; and if reddish neutral, let the crimson lake predominate. Having selected your shade, be sure to have it about the right strength before beginning, as it is difficult to avoid a patched appearance on the mountains with varnish color, especially on the second and third coating, unless you are quick in your movements. If the water requires more color, paint it in the darker places, then repeat the shades on the foliage where it is requisite. Your figures now claim some attention. Any part you want crimson, paint over gold with crimson lake, and you have a splendid color; repeat it when a little dry, if you wish it darker, and for the shades add a little blue with your crimson lake. Blue dresses paint with a pale shade of Prussian blue on white or pale gold; for the shades, paint in with a little stronger Prussian blue. (Please bear in mind, when you wish a pale shade of any of these

colors, especially mountains, to add varnish; and when you want to thin it, use turpentine. We call attention to this, because it is rather difficult to manage varnish colors at first, owing to their drying up so rapidly; but by a little practice you soon find out that if worked with proper consistency the process is not difficult.) Green dress, with yellow lake and Prussian blue on pale gold or white; purple dresses, with crimson lake and a little Prussian blue on white or pale gold. Any part of the figure you do with scarlet, shade it with crimson lake; yellows shade with burnt sienna, pale shade. Faces: paint the features in with Vandyke brown, and different tints with yellow lake, crimson lake, and sienna, paled down, and repeated to suit the eye. Parts of the mountains may require a third and fourth wash; if so, attend to them with the neutrals named above. Sometimes we highten the effect of the near foliage by touching the edges with a little opaque color made of chrome yellow, white, and a little blue. It must be done very carefully, as opaque colors are powerful, compared with transparent ones. If what you do shows too abruptly, you have a remedy by putting on a little more of the transparent color. Parts of the figures may be hightened by a touch here and there of opaque color, and the faces are almost sure to want a little retouching with opaque. When your painting is all finished, a full week should intervene before varnishing; and great care must be observed not to touch the bronze, as the hand or fingers invariably leave a stain, bronze being so delicate.

Varnishing. — In varnishing papier mache paintings, care must be taken to have a clean brush, and your painting must be wiped with a silk handkerchief to free it from dust. Lay the painting flat, and with a one-inch flat camel's hair brush coat over with copal varnish as evenly as possible, being careful to cover every part; leave it flat down, as it is, for a couple of hours or more,

before removing, or the varnish is liable to run in streaks. Once varnishing is quite sufficient to preserve the painting; but if you wish to polish it, another coat of varnish must be given, allowing a week between; then after another week, it should be rubbed with pumice sand and water, in the following manner: —

How to polish. — Get a piece of woolen, put it over some cotton, to make a rubber of it; wet the rubber with water pretty thoroughly, dip it into some fine pumice sand, and rub it backwards and forwards on your varnished picture carefully with a moderate pressure. After you have rubbed a short time, wipe the sand from a part of it, to see the progress. If not sufficiently smooth, rub a little more, care being taken not to rub through the varnish, or you will rub the paint. When it is pretty smooth, wash all the sand off, wipe it perfectly dry, and give it another coat of varnish, allowing the same time for it to dry; then rub again as before with water and pumice sand. When smooth enough, wash off all the sand, and proceed to polish with very finely powdered rottenstone, and a rubber made of soft satin or silk. Saturate this with water, and rub with the rottenstone for a little time, until it shines; then wash it all off. You can make it shine more by rubbing it with your hand, using a few touches of sweet oil and a little more rottenstone.

How to prepare Wood. — When wood is used for painting any of the papier mache styles, it is better to choose the closest grain, and proceed to coat it over several times with paint (either oil paint or varnish paint), rubbing down with pumice sand and water after the third coat. The number of coats taken to prepare varies according to the texture of the wood, as it is necessary to coat it over until it is perfectly smooth and level. Proper time should be allowed between each coat of paint, so that it may dry hard.

Enamel painting looks very well painted on a bronze ground, and suits admirably for tables, chairs, and other furniture.

Glass vases have a rich effect bronzed all over or partially; perhaps an oval or a round, front and back; and if you wish to paint upon it, proceed exactly in the same way as directed for enamel painting or bronze painting.

Chinese Raising. — Trace the design in the same way as in the directions for tracing designs for enamel painting. The raising composition is made of two parts of white lead, one part of litharge, and one part of umber, and mixed with gold size and a little varnish, into a paste, and thinned with turpentine. Put on your raising, when mixed, with a small brush, being careful to float it on evenly. When you have raised all the parts you wish in your design, let it remain flat till the next day. Repeat the same until you get the parts raised as high as you wish. When all the raising is done, three or four days should be allowed for it to dry and harden, (a moderate heat of the fire will facilitate the drying;) coat over the raised parts with gold size, and proceed with the gilding according to the directions for gilding. Two sorts of leaf gold are generally introduced — pale and dark — so the picture will require two separate sizings; next, size with clear gold size all the ground and mountains, (supposing your subject to be a regular Chinese design,) and when dry enough, shade on some powdered bronze with a dry brush. Fine leaves and small trees can be introduced with opaque green made with chrome yellow and Prussian blue, and little flowers painted in with white and stained with red, blue, or yellow. The gold can be etched with black and shaded a little with neutral black. The bronze ground stain with transparent green and a little sienna; afterward introduce a few gold spangles, (put them on with varnish;) this makes the ground look sparkling, and adds greatly to the finish of it.

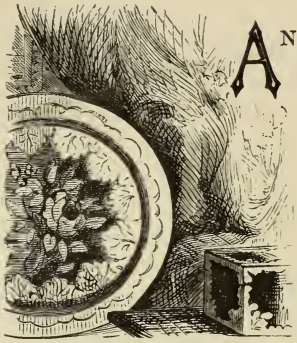
When quite finished, let it dry a week before varnishing: there is no occasion to varnish all over your picture, but only the part that is painted.

Pearling. — Prepare the design, marking all the parts you wish to have pearl. Trace the design upon the article, — we will suppose it to be a small table, — same as tracing for enamel, before explained. Remove your drawing, and place on all your pearl. See how it looks. If satisfactory, get some *spirit* varnish and a small camel's hair brush. Remove one piece of pearl at a time, put some of the varnish in the place with the small brush, and fit on the pearl, pressing it down so as to lie flat. Go through with all the pearl in the same way; some of the large pieces may want a weight put on to keep them flat. Next day give it a coat all over with black varnish made with the spirit varnish and lampblack. Repeat the coat (a flat camel's hair brush is best for varnishing) twice a day for the first three or four days. When the pearl seems pretty nearly even with the black, scrape all the black off the pearl by means of a chisel or knife, being careful not to remove any of the black any where else by letting the knife or chisel slip. When all is scraped off, you can commence coating it over again. This time add a little Prussian blue with your black varnish: it makes a more brilliant black. (The proportions are, to one pint of spirit varnish add one and a half ounces of lampblack and half an ounce of Prussian blue.) Coat it three or four times over if it requires it; then scrape off the black from the pearl again. If it seems pretty level, we will proceed with the next process; (if not, coat again as before, and scrape.) Get some stout broadcloth, and make a good substantial rubber by stuffing in some soft cotton; tie it round, so that you can handle it conveniently; put some turpentine in a saucer with some pumice sand, and charge your rubber well with this, and rub away till you get a smooth surface all over.

When smooth enough, wash the sand all off with turpentine; then rub it with rottenstone and water, using this time a rubber made of silk or satin; this rids it of all sticky property that remains from the turpentine rubbing. You have now got through the troublesome part of it; getting rid of every thing in the shape of black varnish specs, you are ready for the next step. If you wish to have some leaf gold introduced, make your selection of what you will have, and prepare a little gold size by mixing in a little chrome yellow, so as to enable you to see better what you are about. Coat over the leaves or stems, or both, with the gold size, and proceed with the gilding according to the directions for gilding. If any more flowers are in your group than what are pearl, it is requisite to coat them over with white, proceeding exactly in the same way as in the directions laid down under the head of Enamel Painting. The pearl flowers you shade with their respective colors, so as not to cover up too much pearl. For instance, if you want to shade a rose, do it with crimson lake on the shade side of the flower, leaving the pure pearl to answer for the lights. When your painting is all finished, you allow sufficient time for it to dry, and proceed with the varnishing precisely as in enamel work and bronzing.

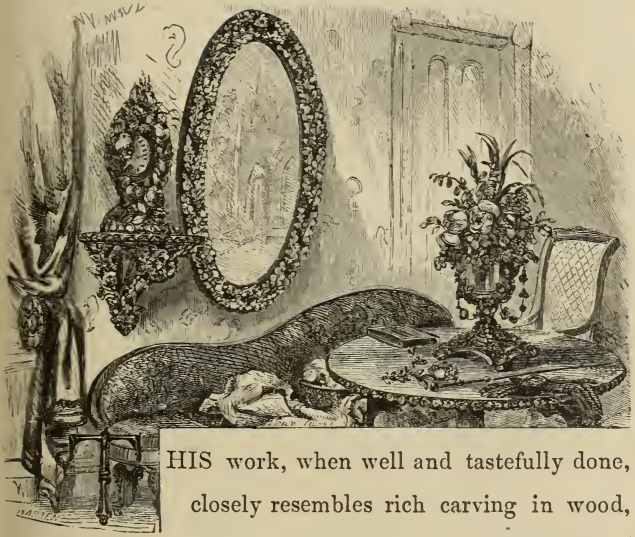
Gilding on Satin, Paper, Cloth, Light-colored, Unprepared Woods, etc. — Sometimes gilding is required upon only small parts of articles. In such cases use strong isinglass solution, made according to the directions written before — the purer the better. Take a small camel's hair brush, and coat over with the isinglass size, while it is warm, the places you wish to gild. When dry, proceed with your gold size, same as the gold size gilding. The reason of applying the isinglass size is to satisfy the porous nature of the fabric, and make a delicate kind of crust as a foundation for the gold size. If you wish to paint flags and banners with oil paint, you must coat over the parts first with isinglass size.

Gilding.



ANY part you wish to have leaf gold it is requisite to cover evenly with gold size, (a little chrome yellow or white lead may be mixed in with the gold size merely to enable you to see the process,) and allow it to dry until it feels a little sticky; it can remain much longer than for bronzing, as leaf gold does not require so strong a sticky property as bronze. When sufficiently dry, put on the gold by means of the tip, as described in glass gilding; or, if you are expert enough, put it on with your fingers from the gold book. Be careful to cover every part of the gold size with *smooth* leaf gold, and when all covered, press gently with a piece of soft chamois leather on all the gilded parts, and remove the superfluous gold. If these directions are strictly followed, you can not fail to have good smooth gilding; but if the gold size is put on thick and uneven, and the leaf gold put on too soon, the gold will look rough and dark, and be very unsatisfactory to the eye when you get more experienced.

Leather Work.



THIS work, when well and tastefully done, closely resembles rich carving in wood, and can be used for a great variety of useful and ornamental purposes.

We have adopted the following method with success : —

Select a soft sheep skin rather thick ; cut from it flowers and leaves to suit your fancy. It is well to have pasteboard patterns free from blemishes and neatly cut, and with these it will be easy to cut from the leather. Due attention should be given to different

sizes and kinds. When you have a sufficient number cut from the leather, wet them in cold water, and squeeze them dry, and pull them into shape, and form the leaves and flowers to suit your taste; while wet, put them into the oven to dry. Make a solution of vinegar and Venetian red, and dip them into it. When perfectly dry, dip them in thin black varnish; if the varnish be too thick, dilute it with spirits of turpentine. When dry, they will have the color of rosewood.

Take gum shellac, and the night before you wish to use it, pour on sufficient alcohol to dissolve it. Dip the flowers and leaves into this solution, taking care not to have it too thick. If not stiff enough, dip them a second time. Put them on a board to dry in the *sun*, as the drying by a *fire* will have a tendency to make them sticky.

Paint your frame, or whatever is to be covered, with Venetian red and vinegar, and when dry, rub it smooth. Varnish with thin black varnish, and when dry, nail on the leaves and flowers with small tacks, and paint with a solution of shellac dissolved in alcohol; finally, varnish with the best copal varnish.

Again, for general purposes, basil leather is good. Select that of an even texture and light color.

The skiver leather is used for grapes, small leaves, and delicate work. (The artist will find that the sheep skin, easily to be had, will answer all purposes, by using discretion in selecting the thick, soft, or thin portions, as the work may require.) Place a piece of the basil leather in water for a moment; press it in a linen cloth until the surface dries. While damp, cut out your leaf with scissors or a leather-cutting knife. Pasteboard patterns can easily be made from natural leaves. By laying these patterns upon the leather, the leaves can be readily cut.

Vein with a pointed instrument, by marking on the smooth side

of the leather; then bend and mold your leaves as you wish them to appear when the work is completed. Dry them quickly to harden them.

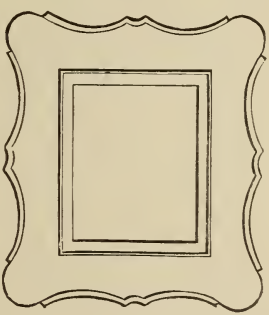
When thoroughly dry, brush all over with prepared stiffening, which is sold in convenient sized bottles. After this process, brush the leaves all over with black varnish; two thin coats are sufficient.

For stems, take strips of basil leather, wet and roll with the hand upon the table, or over a wire.

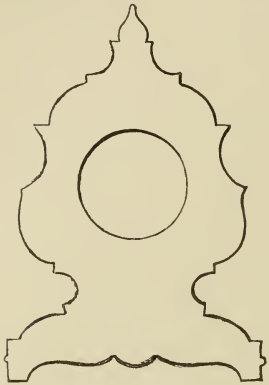
For tendrils, wind the leather, while wet, around a small round stick or tool, fastening the ends; dry quickly by the fire; remove from the stick, and apply a coat of stiffening; the finish is the same as for leaves.

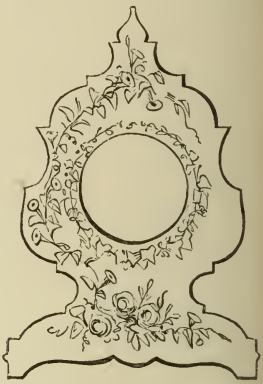
Grapes are very handsome in this work. They are made by tying bits of cotton or wadding, peas, marbles, etc., into the leather with strong thread, then putting a piece of wire through the part which has been tied up for the stalk. Stain and make into clusters, taking care to conceal the part tied. All fruits and flowers are stained, etc., precisely in the same manner as leaves.

The Frame. — Have a frame made of well-seasoned wood, with the outer edge thinner than the inner, though this is a matter of taste. Size it all over. Let it dry for an hour or so. Then apply a coating of oak varnish stain; when dry, it will be ready for use. Commence by attaching the stem with small tacks. Suppose you have a vine; cover the wood with the foliage as naturally as possible. Fasten with strong glue, where necessary. A narrow gold beading gives a finished appearance to a frame.

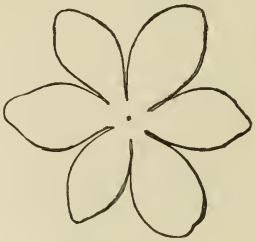


It is impossible in our limited space to particularize the various articles for which leather work is adapted; but every individual of fertile imagination and ingenuity will readily perceive the uses to which this art can be applied. We give a pretty design for a watchstand.





In making flowers, *cut in one piece* wherever you can; the white lily, for instance, where the petals may be squeezed up and





glued to keep them in place. It is always preferable to have a natural flower to look at. A little ingenuity will enable the

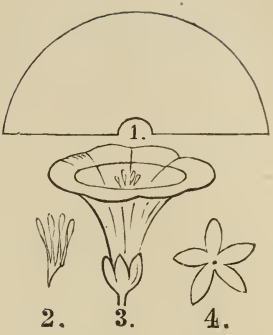
learner to cut the leather to advantage, and the fewer the pieces used, the simpler the work will be.

The bud of the white lily is made by folding the whole corolla close together.

A *convolvulus* may be made by folding and stretching the leather, while wet, over the tool used to make the wax convolvulus. It is very pretty, and not difficult to make.

Roses, *camellias*, etc., can all be made handsomely by a little care and ingenuity.

Do not forget our favorite the *hop vine*. To make it, wind a piece of leather around the end of a wire; fasten well. Mold the requisite number of petals in a convex form, and glue separately around this center.



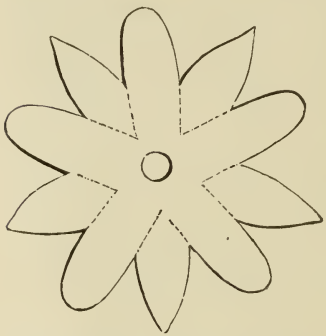


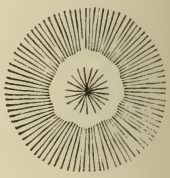
The Fuschia. — The calyx forms the external part of this flower, and is made with one piece of leather cut as in the figure. The petals within this are four, and are cut out, the four in one piece, in the form of the dotted line. They must be molded into shape, and glued to the stamina inside the calyx, so as to alternate with its petals. This flower has nine stamina, and they are cut in one piece of leather. To put the fuschia together: Cut the nine stamina, and attach to them the wire, to form the stalk; then

roll the four petals firmly over the stamina; they must be molded and glued round the stamina and stalk, then take the calyx and roll round the whole; the leaves must be expanded and molded as in the diagram, taking care that the stamina are left out, as in the natural flower, and that the inner petals alternate with the leaves of the calyx; to make the buds, roll up the calyx, and turn the ends in, not inserting any stamina.



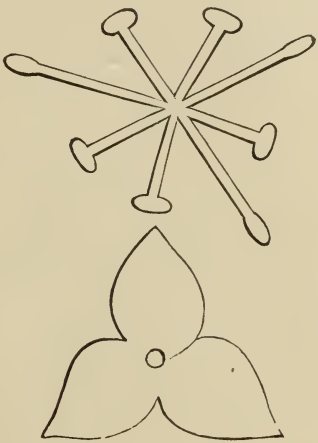
The *Passion Flower* is composed, in leather, of five pieces. Then cut out the corolla of five petals with the rounded ends; cut also a circular piece for the nectary, which must be cut all round with the knife to form the radii, the center having many small cuts radiating from the central point; when turned upward, in putting it in its place, it forms the fringe-like appearance around the pistil seen in the flowers.





The passion flower has five stamina, with ladle-shaped ends, or anthers, and three stigmas a little elevated above, and turning over

the stamina; the anthers and stigmas are made of one piece of leather. The involucrum is formed also of one piece, and the three leaves are laid one over the other, as in the annexed flower.



To put together the various parts above described and form the passion flower, begin by doubling a piece of wire over the angles of the stamina, twisting it underneath; roll a piece of skiver leather round the wire to form the style of the pistil and the stem of the whole flower; then turn up the three stigmas and roll a small piece of leather round them close to the stamina, and turn them over; this being done, place the nectary on the stem, taking care that the cut portion in the center be arranged upward around the pistil. The petals are next placed on the stem, followed by the calyx; the leaves of the calyx must alternate with the petals; liquid glue must be inserted between each portion of the flower to give it firmness.

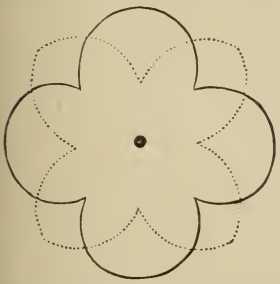
The involucrum, which is a sort of calyx, is put on the stem last, a little way below the true calyx; we may just add, that all the leaves, petals, etc., with the exception of the involucrum, must have the smooth side of the leather uppermost; the petals and calyx must be hollowed out with the modelling tool for that purpose, or if that is not at hand, use the handle of the veining tool, and laying the petals and also the calyx on a smooth surface,



rub them with the ivory end of the veining tool till they become hollow and smooth, as in the natural flower.

The above is the way, as plainly as we can possibly describe it, to make a passion flower. We have repeatedly made the flower exactly upon the above plan, and it has always been much admired.

Camellias vary in the form of leaves, and the petals vary in number. To make a camellia, cut out two pieces, as in the annexed



diagram, containing four petals in each; then cut out one or two larger pieces, with six petals in each, and one or more still larger, with seven or eight petals; then, having a natural camellia at hand, mould them all into form, fasten all the pieces of leather together, the smallest at the top, and the largest at the bottom, so that the petals alternate, with liquid glue, and put a piece of wire through the whole for the stalk; cover it with skiver leather.

To make the *Jessamine*, copy the corolla from the annexed design, by cutting a star-like piece of basil, into which insert the wire for the stalk as closely as possible. As the stamina are not visible in this flower, it is needless to make them. The tube upon which the corolla rests can be made by rolling a piece of leather round the wire thickest at the flower, and then add another piece of leather about an inch below the corolla, which must have five fine-pointed leaves for the calyx.



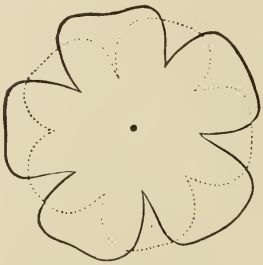
The *Daisy* is formed by making two pieces of leather like the pattern, one larger than the other, and putting

the wire, for stalk, through both of them. The little golden center of the daisy can be well imitated by placing a round piece of leather, rather thick, in the center, shaved off at the edges, and marked with the veining tool full of dots.





A *Wild Rose* is made by cutting out two pieces of leather, exactly as in the engraving, putting the wire through two holes made in the center of the pieces with a fine brad-awl, and pass a piece of wire through the holes, leaving both ends of the wire at the back to be twisted for the stalk. To form the stamina, cut fine strips of leather as long again as the stamina are required to be, and insert them under the eye of the wire which forms the stalk; then cut the stamina, and pinch them up into form. The top piece, containing five petals, must be molded and curved upward, inlosing the stamina; the bottom piece also, containing five petals, must be molded downward, curving and bending them into form.



To make a larger rose, cut out a smaller piece than is shown in the engraving, of the same form, also the two in the engraving, and a larger piece of the same form, making four pieces, containing twenty petals; then proceed as before mentioned, and a fuller rose is produced; thus the character of the flower and the number of petals can be regulated with comparative ease.

The rose leaves can be molded at the back by pressing them into the grape mold with one of the pressing tools.

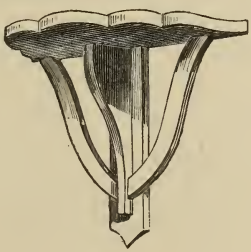
Oak and Ivy Bracket. — The bracket annexed is of an unu-

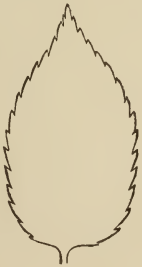
sually pretty pattern, and we give two diagrams. The vine and the convolvulus pattern are much used, with very beautiful effect. We intended this design to exhibit old oak. It should be stained very dark, the oak stems being very thick, while the stems of ivy can be formed of tendrils. To make the oak stem, get very



thick wire, and have it cut to the desired lengths; then cover the wires with leather, and bend them to resemble gnarled oak; attach, as naturally as possible, oak leaves and acorns at the back of the wires, and on the wood work, as shown in the skeleton bracket in a former part of this work; then attach the ivy tendrils, leaves, and berries around the oak stems, and the bracket is completed.







It improves the appearance of any piece of ornamental work, to give the whole when completed a slight coat of varnish.

Card Racks can be made in a variety of ways. The design here exhibited is novel, and at the same time very useful. The back is made either with wood or calf-skin leather; and the leaves forming the rack are also made of the same material. Calf-skin dries very hard, being treated exactly the same as the basil leather in the manner of working.



The Round Open-work Frame. — The beautiful design on the opposite page is made with a round frame of any width desired, having two rebates, one inside and one outside the frame — the inside rebate being to admit the picture, and the outside one to allow of the nailing firmly to the frame the open-work, which is to be made in the following manner: Take a flat board, — an ironing board will do, — lay the frame upon it, and with a black lead pencil or a piece of chalk, mark the size all round, making allowance for the rebate; then having ready the stems, work them in and out, so as to form the open-work as in the drawing; when finished, nail it to the frame, and work stems and tendrils of the vine, hop, passion flower, or any other beautiful creeping plant, attaching the fruit or flowers in an artistic manner, and the result will be one of the most elegant frames ever beheld.

The open or trellis-work of this frame should have stout wire inclosed in the basil leather, and in order that it may not appear formal, wind pieces of leather round the naked wire at irregular intervals, to resemble knots, etc.; then cover the whole with basil

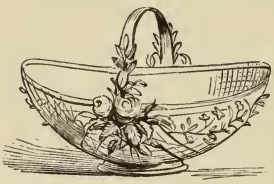
leather. The stem and tendrils, which are to wind in and out, and are a portion of the plant, are not to have wire in them.

Fire Screens are generally filled with Berlin wool, or some other fancy needlework. Those who would prefer to have an entire



piece of leather work, can paint landscapes or flowers upon white leather, using the same medium as is used in body color painting, mixed with finely-powdered colors.

A little ingenuity will enable any one to make very pretty and useful *Baskets*. One like the following, ornamented with rose sprays outside, can be lined inside with velvet, and little pockets being made in the velvet lining, they become a very useful article. The outside is stained in imitation of oak.



The *Running Border* here given can be adapted to ornamenting cornices, poles, frames, etc. It is very easy of imitation, and will well repay the artist.

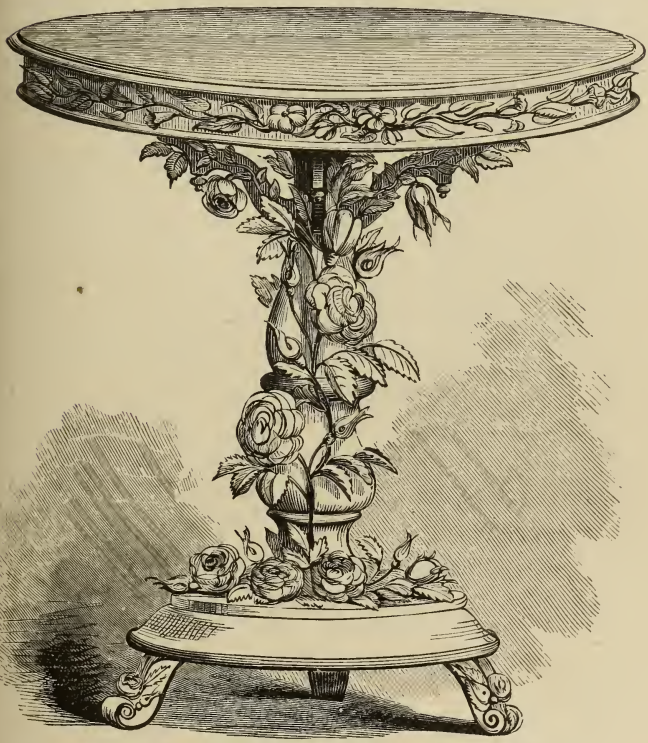


We close this article with a beautiful design for a TABLE. It is made in four pieces, so that one part can be done at a time, and when completed, can be removed until the whole is completed, when it can be put firmly together, and forms a solid example of the use and beauty of the ornamental leather work.

In making *Acorns*, procure some natural acorn cups, — choose such cups only as are perfectly sound, — then pierce two holes through the bottom of the cup, pass a piece of fine wire through the holes, leaving the two ends long enough to be twisted into a stalk. If the stalk is to be exposed, it must be covered and made fast with liquid glue. The most correctly formed acorn tops are those turned in wood, which can be firmly placed in the cup by the aid of the liquid glue. This completes the fully-formed acorn. A slight variation of this method is suitable for cherries and grapes.

The Size for Stiffening. — Simmer four ounces of strips of parchment in eight ounces of water till it is reduced one half; skim off any impurities that may arise to the surface, then strain through a

fine sieve, or cloth, into a basin; leave it till cold, when it will be firm and clear. When required for use, cut off as much as you want, and warm it. Use while warm.



A thin glue size of a light color will answer when the above materials are not handy.

In this, as in all other kinds of fancy work, every thing depends upon the neatness of the work. You must not only arrange taste-

fully, but you must secure every leaf, tendril, and flower firmly; and, above all things, do not crowd together such a mass of work as to displease the eye and offend good taste.

A very pretty effect is produced by gilding and bronzing the leather. Go over the surface of your leaf or petal with a camel's hair pencil dipped in gold size, and when so dry that it will stick to the finger lay on your gold leaf or gold bronze as in directions for bronze painting, on another page.

In painting leather work, use finely-powdered colors, mixing them to the consistency of cream, by using the white of an egg with two ounces of distilled vinegar. Keep this in a bottle, and shake it well whenever you wish to mix colors with it. Colors can be also mixed with warm parchment size, or with a weak solution of gum arabic. In all of these methods apply a coat of quick drying pale varnish. Oil colors are not suited to this kind of material.

Taxidermy.



TAKE out the entrails; remove the skin with the greatest possible care; rub over the whole interior with arsenic, (a deadly poison;) put wires from the head to the legs to preserve the natural form, and stuff immediately with tow, wool, or the like. If allowed to dry after applying the arsenic, the skin becomes too stiff to handle.

Another, and, as we think, a better way for very small

birds, is, "after taking out the entrails, to open a passage to the brain, which must be scooped out through the mouth; introduce into the cavities of the skull and the whole body a mixture of salt, pepper, and alum, putting some through the gullet and whole length of the neck; then hang the bird in a cool, airy place — first by the feet, that the body may be impregnated by the salt, and afterward by a thread through the under mandible of the bill, till it appears to be sweet; then hang in the sun, or near a fire. After it is well dry, clear out what remains of the mixture, and fill up the cavity of the body with wool, oakum, or any soft substance."

ANGLO-JAPANESE WORK.

"This is an elegant and easy domestic art. Take yellow withered leaves, dissolve gum, get mixed black paint and some copal varnish, etc. Any articles may be ornamented with these simple materials — an old work-box, tea-caddy, fire screen, flower pots, etc. Select perfect leaves, dry and press them between the leaves of books, rub the surface of the article to be ornamented with fine sand paper, then give it a coat of fine black paint, which should be procured mixed at a color shop. When dry, rub smooth with pumice stone; then apply two other coats. Dry; arrange leaves in any manner and variety, according to taste. Gum the leaves on the under side, and press them upon their places. Then dissolve some isinglass in hot water, and brush it over the work while the solution is warm; when dry, give three coats of copal varnish, allowing ample time for each coat to dry. Articles thus ornamented last for years, and are very pleasing."

TRANSFER ON WOOD.

Dissolve salt in soft water; float your engraving on the surface, picture side up; let it remain about one hour. Your screen, box, or table should be of bird's-eye maple, or other light-colored hard wood; varnish with best copal or transfer varnish.

Take the picture from the water, dry a little between linen rags; then put the engraving, picture side down, on the varnished wood, and smooth it nicely. If the picture entirely covers the wood after the margin is cut off, so that no varnish be exposed, lay over it a thin board and heavy weight; leave it thus in press over night. If you wish but a small picture in the center of your wood, apply the varnish only to a space the size of your picture. Dip your fore finger in salt and water, and commence rubbing off the paper; the nearer you come to the engraving, the more careful you must be, as a hole would spoil your work. Rub slowly and patiently, till you have taken off every bit of the paper, and left only the black lines and touches of your picture on the wood, in an inverted direction. Finish up with two or three coats of copal varnish.

Wax Work.



THE tools requisite in this delightful branch of ornamental work, are as follows, and as the learner advances in knowledge and experience, he will easily originate other forms and models from which to make particular designs : —

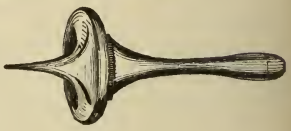
A " dipper," or " plunger," (for sheeting the wax,) made of lignumvitæ, or some very close-grained, hard wood, as smooth as glass, from four to six inches in

diameter across the face, (which should be *slightly* convex.)

Molding sticks of this form, and of two or more sizes.



One of this, for convolvulus.



One of this, for lily of the valley, and centers of flowers.



One of this, for the lilac and cups of jonquil.



If you wish to make other varieties of bell flowers, get the sticks turned by some skillful workman, from natural flowers; they should be very hard, and as smooth as possible.

The brushes used in painting the smooth surface of flowers are the round, stiff, bristle brushes, called *scrubs*, or *theorem brushes*. For fine lines, spots, etc., take fine camel's hair pencils.

Wire of three different sizes, annealed.

To prepare Wax for Flowers. — Take the very best quality of white wax, and melt it slowly in an earthen vessel or porcelain porringer; when melted, stir into it one table-spoonful of fir balsam to every cup of melted wax.

Have at hand a basin of warm soap suds, fine towels or rags, and your dipper.

When the wax is melted, wet your dipper in the suds, rub soap all over it, rinse it in the basin, shake off the water, dip with a quick motion into the hot wax, so as barely to skim the surface, bending the dipper over, so as to exclude the air; raise your dipper from the wax, and plunge it into the basin of suds. A sheet of thin, semi-transparent, flexible wax will be found therein of the right consistency for roses, azalias, and all flowers of similar texture. Continue dipping off sheets until you wish to change the quality of the wax; be careful that the wax be neither bubbling hot nor cool.

Japonicas, orange blossoms, and all thick, opaque petals require a different white. To make this, we put into the wax, when hot, a small bag of flake or German white; never more than one third of a tea-spoonful, and dip as before, only regulating the thickness of the wax by heat. When you have dipped off as many sheets as you require, pour the rest into a well-soaped cup to form a lump for pinks.

Next to the white, prepare yellow wax in the same way as the white, only using yellow-powdered chrome. After you have made the yellow, put together all the bits and edges of wax which you have pulled from the sheets, add green powdered paint, and dip off various shades of green, from very light to very dark. Other colors, as red and blue, may be prepared in the same way; but we prefer painting the white and yellow wax to obtain more brilliancy of tone.

The melted wax, as for japonicas, is used for bell-flowers. Soap the stick very thoroughly, wash off the particles of soap, plunge your stick into the hot wax, then into the suds. In taking the stick from the wax, let the wax drip from the end rather than the side. We think it best to plunge the stick quickly and raise it perpendicularly; in this way, if there be a little extra thickness, it will come in the right place.

The utmost care must be taken with the lily of the valley; be not discouraged if you dip two or three times before getting a perfect bell. The wax must be hot, without simmer or bubble.

Green leaves made by dipping the natural leaf into the hot green wax, then putting the two wax sides together, with a wire between, are more natural than when cut and veined; but they tax the patience, and require more time.

Another Method of preparing Wax. — Melt the wax in a vessel of hot water; the wax will rise to the top. Put in fir balsam, sweet oil, and spirits of turpentine, in the proportion of 1, 2, 3, — that is, one part turpentine, two oil, and three balsam, — six teaspoonfuls to a pint of wax in warm weather, and one third more in cold weather. Immerse a junk bottle into the wax; it will form around it. Cut down the wax on the bottle, and you will thus have a strip instead of a round sheet of wax.

We prefer the former to the latter method of preparing the wax, though we use both.

To make Patterns for Flowers. — Dissect natural flowers, and cut paper patterns from their petals, writing on them the number of each size and the number of sizes, likewise the color desired.

Flower Making. — Where a flower requires fine work or minute penciling, the sable brushes are to be used for

this purpose, and they will be found essentially necessary in the imitation of geraniums, carnations, heart's-ease, or flowers of similar character.

Before you commence cutting, take care to render your scissors loose in the rivet. Dip them constantly in the cup of water at your side, to prevent their adhesion to the wax; should they, in spite of this, become clogged, place them in your mouth for a few seconds, and the heat will clear the edges so that you can wipe them easily.

You will perceive that the wax has a dull side and a glossy one — a right and a wrong.

It is better to lay the paper pattern upon the dull side, so that, in cutting out, you secure a sharp and clear edge. Be cautious that you place the pattern in such a position as to cut with the grain of the wax. Be sure to cut the same number of petals as you found in the natural flower, or the harmony of proportion desirable in your flower will be lost.

Spread half a sheet of tissue paper over the table upon which you intend to work, so as to prevent the slightest dust or impurity of any kind from injuring your wax, to which every particle of dust will adhere.

As we have remarked in speaking of painting the

fruit, the stiff brushes are held perfectly upright, and the color applied rapidly.

Damask roses, fuschias, camellias, etc., may be painted with crimson powder mixed with water on the palette. (See list of colors.)

A bright scarlet for poppies, scarlet dahlies, etc., is obtained by painting the same crimson on yellow wax.

The same on a light lemon-colored wax gives another beautiful shade. Various shades of rose tints can be gained by carmine more or less deep. Sometimes we paint with dry powder. If the wax be slightly warm, the powder will adhere, and a soft, velvety surface be produced, such as can not be made by the use of the water color alone. In making a bouquet, you need the various colors and surfaces, if you will be true to nature. Be very careful to avoid painting that portion of each petal which is to be joined to the foundation of the flower, as any moisture or color prevents a secure adhesion.

To make a Pink Rose. — Lay the cut paper pattern on the wrong side of the wax, cut with the small, sharp scissors, frequently dipping them in warm water, or putting them in your mouth. Paint very lightly with carmine, leaving the lower part of the petal white. Lay a petal on the palm of your hand, right side down; press the head of the wooden pin, first on the right, then on

the left side, endeavoring not to press the middle. This will give a graceful curl to the petal, as you will observe by the natural one. Half-blown roses and buds need to be curled more than full-blown ones.

Your petals painted and arranged in order, proceed to make the stamens. This is done by binding a strip of yellow wax, one eighth of an inch in width, on a strip of white wax, nearly one inch in width, and cutting through the yellow half way down into the white, so as to make a fringe. The finer you cut it, the better; or you can cut the unbound white wax; then dip the cut ends into a solution of gum arabic, and afterward into powdered yellow; this will give a pollen.

The calyx is cut from a suitable shade of green, and from a pattern taken from the calyx of a natural rose.

For the leaves take two shades of green — one for the upper, the other for the under side of the leaf; put them together, and cut your green leaf through the double wax; insert a wire between the two parts of the leaf to form the fibre and pedicle of the same; then press the two sides firmly together, and serrate the edges with your sharp scissors.

The leaf has a neater finish if the wire be covered with wax before inserting. Take a very narrow strip of wax, lay it perpendicularly against the wire; then twist the wire round and round between the thumb and finger, until it is entirely covered with a smooth surface of green.

Observe how symmetrically Nature has arranged her rose leaves, and try to imitate — one large one for the top of the stalk, two a little smaller placed just below, and a third pair still farther down.

Fine wire doubled is better than coarse, stiff wire. Take of such a piece the desired length; turn the end over two or three times, to prevent the flower slipping off while you are putting it together.

Cover the end thus bent with green wax, pinching up a bit in the center for a pistil; wind around this the strip of fringed wax, and compare with the natural flower. Now set around the petals, commencing with the smallest size; press the lower part of each petal on the lump which is around the wire. Take the other sizes one after the other, pressing them in the same manner, and so on till all are used. Work down the lower parts of the petals with the small end of the molding stick.

Set the calyx around neatly, and cover the stalk. You will have a rose natural and beautiful in proportion to the neatness of your work and the accuracy with which you have imitated your pattern, a natural one.

Persons often smell of our roses, then, with a look of astonishment, exclaim, "Why, what kind of a rose is it!" Nature alone can give the perfume.

Camellia. — After modeling a rose, any person can make a japonica by having one to look at. In case our reader has none, we give these directions.

Cut six petals from each of the heart-shaped patterns from which you cut your rose, only a trifle longer. Make a ball of wax on the end of the wire, turned as before to prevent the flower slipping off, and bend over it eight or ten of the smallest petals; then place three rows of the succeeding sizes of petals turned inward around the ball in the center, and the other rows turn outward. The calyx is of light green, round at the top; the leaves are large, brilliant, dark-green color.

Colored japonicas vary only in color. Crimson painted on yellow gives a fine color, and carmine on white makes a beautiful japonica.

Convolvulus. — Convolvuli are dipped on a stick made for that purpose from the natural flower. Paint the veins with a fine

brush. Put a bit of wax on the end of a fine wire, and cut to imitate stamens; pierce the wire through the tube of the flower, twist with green wax, and finish off with tendrils and leaves. Tendrils are made by covering a small wire with wax, and twisting it around a molding stick, commencing at the point, and turning it round and round from the center of the stick to the point, to form a spiral cone. A few small green leaves make a pretty finish.

Lily of the Valley. — "Consider the lilies, how they grow; they toil not, they spin not, and yet I say unto you, that Solomon in all his glory was not arrayed like one of these." Cut the edge of the little white bells into scallops, turn them back a little, put a bit of yellow wax on the end of a bent wire, dip it in gum arabic, then in yellow powder for pollen; draw the wire through the center of the flower, and twist for a stalk with very delicate light green. The leaves are too large and stiff to be pretty in wax.

Violets should be painted with a soft brush; they require much time and care.

Orange Blossoms must be made from thick wax; the stamens cut longer than for a rose. The beautiful white buds and various green leaves can hardly be equaled by any other flower made in wax. They are pretty wedding presents for the hair.

Dahlia. — Cut the petals from the natural flower; roll each petal with the head of the molding stick from the top to the bottom; draw a perpendicular line with the point of the stick through the center of the leaf, and curved lines on each side, like the longitudinal lines on a globe; turn the top of the three largest sizes back a little.

As this flower is very broad at the base, pass your wire doubled twice through a large button mold, twist it firmly underneath, and cover it with yellow or very pale green wax; roll up a small bit of yellow wax, and mold it to the center of the button; press closely

around this the lower end of a cut fringe of yellow wax dipped in gum arabic and powdered for pollen; around these stamens mold the twenty-five or thirty small petals. Care must be taken to keep them pressed very closely together, and as the surface of the button becomes filled, wind around its edges strips of yellow wax; continue to set the petals around in the order of their sizes, keeping a broad surface.

The calyces help to support the flower. Below the two rows of flat calyces, place five nipped at the ends and turned backward.

This flower is rather difficult to put together, but amply repays the labor by its naturalness and beauty.

Pinks. — The petals may be cut and pointed with sharp scissors, then painted with a soft brush, or with the dry powder, as heretofore directed, according to the color desired.

Another and Better Method. — Paint all over the lump of wax which you have run in the cup for that purpose; then scrape from it with a sharp penknife. If you hold the knife between the thumb and fore finger of the right hand, and begin to scrape at the center of the knife, leaving off at the point, you will get a beautifully variegated pointed petal, smooth on one side, and slightly quilled on the other. We draw a bit of quill feather over the knife for the two stamens, and arrange the petals around in order, beginning with the smallest. Finish off with a pointed calyx; imitate the natural one.

Hyacinths can be made single or double, of various shades and colors. Do not paint the lower part of the petals. Roll them from the top to the bottom, draw a line through the middle, press it on the under side to make a strong indenture, put the lower part under the thumb, and turn the top over the fore finger — easy to make.

We have now spoken of the various methods which we employ in making flowers, and will only add, that in our study to imitate natural flowers, we use whatever suits our purpose best; for some stamens, as those of the dahlia, we dry the center of a natural dahlia, and use it instead of the cut stamen. Sometimes we dip sewing cotton into hot wax, drawing it through the fingers; this is good where the filaments are long. Again, manilla grass is used, as it is stiff as well as delicate.

If we wish to represent a petal having one color on one side, and one on the other, as the white lily, which is green and white, we put a piece of thin white muslin between green and white wax, and cut the petal through the two; this interlining gives a clear green on one side, and a clear white on the other; the same may be done with other colors, as the buff and pink for honeysuckles.

White Passion Flowers. — To form the three purple anthers to be seen on the top of the pistil, roll white wax round fine wires of about three quarters of an inch in length, till the proper size and length are obtained, remembering to make them thicker as you approach the top, which in itself is nearly globular.

Color these anthers with the darkest shade of purple, and twist the ends of the three wires together.

In order to form the pistil, place, one over the other, a sufficient quantity of light green, light yellow, and white wax, the latter being intended for the outside; roll these together round second sized wire into the desired shape, the top being thicker than the base, which terminates in a globe of lemon-colored wax, representing the ovary or seed cup.

The three purple anthers are placed on the crown of the pistil, so that their tops are equidistant from each other, forming a triangle, the sides of which are about an inch in length.

Five ladle-shaped stamens are next formed from the same union of wax as used in the pistil, properly cut by the pattern, curled and united to the stem of the pistil, having been previously colored round the edges with yellow.

Cut a piece of white wax into a fine fringe about half an inch deep and two inches long; color the fringe with a rich deep purple, and roll it round the ovary, turning the purple portions over the globe, and touching the pistil.

Double a piece of white wax the same length as before, and snip the edge with the point of the scissors about the twentieth part of an inch; this short fringe, being colored purple upon its edge, is rolled close to the base of the preceding piece.

The rays are formed from a double piece of white wax, and cut in fine shreds to pattern; roll each between your finger and thumb, as for a stem, and when all are rolled, place them upright, and close to each other, upon a strip of white wax about two and a half inches long and half an inch deep, taking care that the rays are so placed that their points extend about three quarters of an inch above the strip.

We now proceed to color the points with blue, leaving the centers white, and tinting the base with purple.

This done, bend the points backward, and arrange the rays round the portions already attached to the seed cup.

Place one sheet of lemon-colored wax between two of white, and from this cut the petals. Color them on either side with light green; curl upon the uncolored side -- first with the head of the stick round the edges, and then once down the center.

The calyx is cut from light green wax, and curled upon the glossy side.

After placing the petals so as to form a double star, proceed to roll green wax round the stem formed of wire.

The passion flower is a native of Brazil, where it attains a luxuriance of growth unknown to our temperate regions. The legend connected with it has given it an interest almost sacred, even when viewed by other eyes than those of superstitious devotees.

It is said that certain Jews, bewailing in Jerusalem the death of Christ, saw for the first time this flower, by some said to have sprung wherever drops of his blood had fallen, and, with the scene of his wondrous passion and death still fresh in their memory, gave to this beautiful blossom a symbolic meaning, indicative of his sufferings and the manner of his death.

The anthers are supposed to represent the three nails used at the crucifixion.

The rays represent the glory of our Lord. The purple

fringe, sometimes found with red spots upon it, is a type of the crown of thorns.

The petals, ten in number, are the representatives of those apostles who were faithful to their heavenly Master.

The three sepals forming the calyx are emblematic of the Trinity.

This poetical conception has caused the passion flower to be held in esteem almost amounting to veneration in Catholic countries; and the blossom is found entwined in many cases with emblazoned inscriptions, and borders of old manuscripts of the sacred writings.

Who does not love the passion flower? And who, among God's children, does not recognize his glory in every flower that grows? The anemone, the buttercup, the daisy, the violet, all lead our thoughts to him, and we are forced to cry out, "How wondrous are thy works, O God!"

Wax Fruit. — Some people use the poorer kinds of wax for fruit, thinking to economize; but our experience has taught us that the best is the cheapest, and therefore we get the best the market affords. We melt the wax in small earthen or stone pitchers, putting a white

muslin bag of paint, say one third of a tea-spoonful, into the hot wax. For lemons, yellow apples, peaches, etc., we use yellow or lemon powdered chrome; for oranges, orange chrome; for green apples, cucumbers, green pears, etc., green chrome, varying the shades according to what we desire to make.

The wax should never be heated to boiling, neither should it be made thick with the powdered paint. If a sufficiently dark color can not be obtained by the use of the little muslin bag, then add oil paint of the desired shade, from the tubes. We furnish Winsor and Newton's colors, — the best in use.

For a rich plum, for example, we color the wax with drop red powdered, and add rich dark blue, or purple, from the tube.

Oil the inside of the mold by gently patting it with a bit of cotton batting dipped in lamp oil and tallow, as before mentioned. Place the mold so that you can see how to bring the locks together in an instant. Hold one half the mold firmly in your left hand; with the right hand pour into it the melted wax from the pitcher; shut the empty half over it as quickly as possible, and holding the mold with both your hands, press the

two sides together, turn round and round and shake in every direction, until you can no longer hear the motion of the wax; then set the mold aside to cool. While you are waiting for that piece of fruit to cool, mold others in the same way.

If one person is to work alone, and wait upon himself, we advise him to make fruit of but one color, say yellow, as in peaches, yellow apples, lemons, yellow pears, crab apples, until he has acquired some skill, and is able to move quickly and manage many things. Before pouring the heated wax into the mold, try it by placing a thin bit on the surface of the melted wax; if it melts immediately it is *too* hot, and will spoil the mold; if it floats on the surface, slowly melting at the edges, it is all right. To have the fruit look well, the wax must be neither too hot nor too cold.

In from ten to fifteen minutes the mold will feel cool to your hand, when you can open it and take out the fruit; scrape away, in a slanting direction, the seam where the two parts of the mold united; after which, rub it with a soft rag dipped in turpentine.

The fruit being nicely clean, smooth, and without cracks, proceed to paint it with a bristle brush, of which

you must have half a dozen, as you must always use the same brush for the same color.

Take, with a small palette knife or spatula, out of the bottle, a minute portion of the color required; if you have a peach, for instance, take carmine, dip the end of the brush stick into water, letting the end of the globule fall upon the palette near the powder, and mix well together, until the tint be of the consistency of cream, and perfectly smooth. We must caution against dipping the body of the brush, or bristles, into water. The brushes used are held upright, and the color applied rapidly.

If possible, have a natural peach, and try to imitate it in color.

For the down of the peach, put some dry flour on the palms of your hands, roll the peach between your hands until every part be covered with the flour; after which, the peach should be as little handled as possible.

To have a variety in your peaches, paint some a little green or brown; a brown spot now and then, has a good effect.

Oranges and lemons, eggs and plums, need no outside painting.

Red apples are painted over the yellow wax, and can be nicely finished up with the camel's hair pencil; for the apple calyx, insert a bit of carbonated paper, tobacco, or tea leaf; for the stem, take a natural one. Finish your apple by rubbing it with the hand till it shines; or, what is better, varnish it with fine copal varnish.

Tomatoes are handsome, and, provided you get a nice mold, they are easily made. Various small fruits, as barberries, strawberries, etc., are formed with the fingers, and stuck with beads where necessary. Blackberries are handsome, if made with care.

Grapes. — Many persons make purple grapes by putting a lump of wax on the end of a bent wire, and afterward in melted rosin. They look well at a distance, if nicely powdered with blue paint; but we prefer forming them of purple wax entirely, or dipping grape glasses into the purple, as we do into green wax for green grapes.

We obtain various glass globes of the sizes of grapes, glue fine wire into each of them for a stalk, and plunge into green wax, prepared expressly for grapes, as attention must be paid to their color.

Have the wax very hot, and dip the glass globe as

quickly as possible, holding uprightly to let the wax run under the grape. (Don't mind if the hot wax makes your fingers tingle; you want a beautiful bunch of grapes; "pay for a thing and have it;" we have dipped two hundred without stopping.) Bunch the grapes, the small ones at the end; wind the stalks, and finish up with tendrils and leaves.

Having good molds, it will be easy for you to make wax dolls, birds, sheep, etc.

Hold the mold in your left hand; pour the melted wax into the aperture. As soon as it forms around the edges, pour back into the vessel what remains, and set the mold aside to cool.

To color dolls, we stir a very little vermilion into the hot wax; or, what is better still, tie it up in a bit of muslin, and paint the cheeks with the stiff brush, in the same manner as rose leaves.

We put hair on their heads, and insert enameled eyes or beads, according to the size of the doll.

SEALING WAX TO IMITATE CORAL.



MELT sealing wax of the desired color in first proof alcohol. Spread thickly over a pasteboard, basket, plate, or small waiter. Stir rice, sago, and small bits of tapioca, into the vessel of dissolved sealing-wax; spread the same over the basket, etc.; dry thoroughly. This is pretty for card receivers.

Sealing-wax Painting. — Into twelve large-mouthed bottles, containing about half a gill each, put as many colors and shades of sealing wax. Pour over alcohol, best quality, sufficient to dissolve the wax. Paint flowers, birds, etc., with the same to imitate enameled painting. A friend of ours, who had much skill in painting, received $60 for a small table painted in this way.

Plaster Work.

PLASTER WORK.

GREAT care is necessary in regard to the consistency of the plaster, and the thorough greasing of the molds.

Provide yourself with the best ground French plaster, some good lamp or neat's foot oil, (if the former, add a very small bit of mutton tallow,) camel's hair pencil, penknife, rags, thick brown paper, small bowls, or a box of sand, and well water.

Wipe such fruit as you have selected for molds very carefully, and remove the calyx and stems without marring the skin. If you wish to mold nuts, or fruit having a rough surface, (except oranges and lemons,) it is best to grease them in such a manner that all the surface may be perfectly smeared, without being greasy.

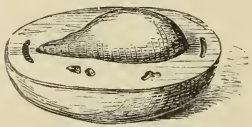
Make hollows in your sand, or, as we think preferable, lay cloths as smoothly as possible in the bowls to receive the plaster. You will see the advantage of the rags over the sand, when you finish up the molds, particularly if you wish them to look very neatly on the outside.

Having every thing at hand, (and *be sure* that you do have every thing ready, for the plaster will not wait your motion,) begin to mix your plaster; at first, take but little, say a half pint of water or less; into this filter your plaster until you get the consistency of batter for cakes; we usually mix with an iron spoon. Pour the plaster into the hollows in

the sand, or into the bowls in which you have spread the cloth; insert just one half of each piece of fruit thus: —



let it remain until the plaster is hard; then remove the fruit with the greatest care. If your plaster was properly mixed, you will have the exact impression of the fruit on the inside, and on raising from the cloth, a pretty smooth outside surface. Now trim the edges, cutting the plaster horizontally to the level of the impression on the inner side of the mold; the reason for this will be obvious when you see how beautifully the parts will fit together; now make three or four grooves in the horizontal plane of the mold,



thus: we make one oblong, another round, one large, another small, quite unlike for convenience sake; this done, oil every groove and all the edges just formed by your knife.

The mold being now thoroughly oiled with the brush, except, of course, the inside, reset the fruit; pin the thick brown paper around the mold which contains it, so as to form a case, which must be, at least, two inches higher than the fruit as it stands in the mold.

The vessel in which you have mixed the plaster, as well as the spoon, being perfectly cleaned, mix again; this time pour the plaster into the paper case; it will cover the fruit and run down the grooves forming nice locks; when hard enough to remove the paper, take hold of the plaster with both hands, and pull the two parts asunder, remove the fruit which was entirely encased in the plaster, and you will have a nice mold with firm locks. If our directions are carefully followed, there will be little need of trimming the last part.

Should there be a few holes in your mold, mix up a little fresh plaster, and insert it with the point of your knife, smoothing and trimming the edges with your fingers.

The molds being perfectly made, set them in a warm oven, or in an airy place, to dry; they will not be hard enough for use for three or four weeks, when they will become hard as stone, and do many years' service. We have on hand some peach molds which we have used these ten years; and, for aught we know, they will be good for ten years to come.

Do not expect to make the very best molds at the first attempt. The plaster hardens so quickly that you must have a little practice in order to get things just right. Again, if you stir it too much or too little, it will in the first instance lose its strength, and in the second be lumpy. Be sure to have every thing perfectly cleaned at every mixing.

We recommend Experience as the best of teachers; she has treated us very kindly, and will be to you what she has ever been to others.

Sometimes we make one mold in three or four pieces, of course mixing fresh plaster, and making new locks for every additional piece.

While we advise you to mix but little plaster at a time, until you can mix it easily, we wish you to have several things in readiness, that you may use up *all* you mix. About a pint of the mixture would be sufficient for the half mold of a middling sized peach, an egg, and a nut; therefore it is best to have as many things in readiness, otherwise you must throw away your superabundant mixture. Now that we have told you *how* to make molds, we must lead your attention to the forms of the fruit, or whatever you intend for your model.

If you wish to make a mold from an ear of corn, in which the grains are irregular, it will be almost impossible for you to make it in two pieces. Try it, and you will see that you can not get the ear from the mold without breaking it; and this will teach you that unless the model can be easily removed from the plaster, it is worthless, inasmuch as you could not take an object in wax safely from such a mold. (See engraving.)

In order to obviate all difficulty, either choose such fruits, etc., as can be made in a mold of two parts, or make your mold in three or more parts, according to the fruit.

Molds for small wax dolls can be made in two parts, the doll placed in the plaster in a lying position.

Molds for dolls' heads of medium size may be made in two parts, and left open where the head is fastened on the body. Cut the plaster off level on the open side.

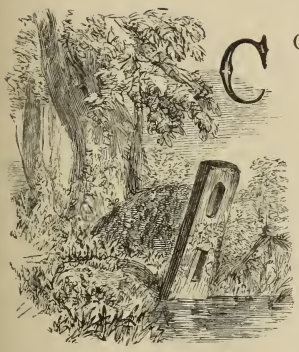
Molds for sheep, lambs, and dogs, (lying down,) also for human hands, may be made in the same way. If you wish to take the mold of a hand, be sure to oil it nicely (that is, to oil it without leaving oil standing on the surface) before laying on the plaster; leave the opening at the wrist.

When you have succeeded in making good molds, you can try your skill at plaster fruits and figures. As much of your success will depend upon the non-adhesion of the plaster to the model, remember the oil and tallow.

Mix the plaster as for molds; pour into the mold as soon as it thickens on the sides; pour out that which remains, if you wish your mold hollow.

Should you wish to make plaster fruit, you must cut an opening in your mold, (while it is fresh, of course,) to admit the thin plaster being poured from the spout of the vessel in which it is mixed.

MOSS WORK.



COLLECTING and arranging, in various forms of grace and beauty, the delicate and many-colored mosses with which our fields and forests abound, has long been a favorite pastime with all lovers of the beautiful in nature. A fertile imagination and inventive mind will readily perceive the many objects for which moss work is well adapted — vases neatly and tastefully covered with delicate mosses, arranged with an eye to the harmony of colors, are very appropriate for holding dried grasses; crosses, little towers, "ancient and moss-grown," for watch stands; frames for holding collections of leaves, grasses, or flowers, — indeed, it is needless to particularize. Beautiful landscapes can be made, closely resembling nature.

Collect all the varieties of wood moss, beautiful bits of bark, and dried leaves, within your reach. Make a design, perhaps of a landscape, in which are ruins, bridges, rocks, etc. Paint a sky as in water colors, then cut and glue thin bits of bark and moss on the ruins; moss on the rocks; dried algæ or forest leaves on the distant mountains, and the bright-colored and green mosses, of various hues, on the foreground. Such a landscape is calculated to draw out the ingenuity of the pupil, and requires no little study, and when well done, is a very pleasant picture. Set in a deep frame.

SEA WEED.



THE sea shore is an inexhaustible source of pleasure and instruction; and to one who has a taste for the beautiful, or who loves to search out the wonders of the ocean, and trace in them the "foot-prints of the Creator," new avenues are constantly being opened for the acquisition of knowledge, and the means of rational and elevating pleasures.

The great variety of sea weeds, their beauty and delicacy, and the graceful and attractive forms in which they can be arranged by skillful hands, have given to their collection and arrangement a deserved popularity among all frequenters of the sea shore; and it is a pleasant sight to see groups of children and adults, wandering along the surf-worn beach, selecting the delicate fringes of moss; and afterward, to see the fruit of their labors arranged in beautiful groupings, their bright colors well preserved, and the whole forming a picture pleasing to the eye and elevating to the taste.

After having collected your sea weeds, throw them into fresh water; cut a piece of paper relative to the size of the weed, oil the surface, and put it under the weed you are about to lay out; spread with a camel's hair pencil, or pick apart with a pin; we prefer the former. Great care, patience, and delicacy of handling are necessary in this process, for much of the beauty of the specimen depends upon preserving the minute thread-like fibers of the weed.

Trace out each thread, separating them all, and giving them such a position on the paper as will show the plant to the best advantage. Then gently raise the paper from the water, holding it in a slanting direction to let the water run off. Then put in press. A good way to make the press is to put three layers of blotting paper on a board, and upon this place your specimens; over this, muslin or linen, and over that, paper again, and then another board. Dry the paper and cloths above if necessary to facilitate the process.

Take your specimens from the papers and arrange on paper in bouquets, wreaths, or what you like, adjusting them according to the different colors, and thus obtain a pleasing variety; secure the ends neatly with gum arabic. It is well to brush over the coarser kinds of algæ with spirits of turpentine, in which a very little gum mastic has been dissolved.

Having arranged beautiful specimens of moss and sea weeds, we sometimes cut a very small basket through the middle, and sew it on the paper in front of our specimens; then we fill our basket with various kinds of moss, which, standing out in relief against that gummed on the paper, presents a basket of moss to the admiring eye of the lover of nature.

"There 's beauty in the sea."

A lady of our acquaintance, who has been in the habit of spending much time in collecting sea-weeds, tells us that she filled no less than forty little baskets with moss, in one season, for presents to friends. We are so happy as to have one of them hanging in our parlor, which does great credit to the artist, so beautiful are the combination of colors and the delicacy and taste displayed in their arrangement.

HAIR WORK.



TO make hair flowers we need live hair, that is, hair from the head of a living person; annealed wire, very fine; pearl or gold beads, scissors, a pair of pinchers, a bit of whalebone, and knitting needles of three sizes. Brush the hair as smoothly as possible, and tie in bunches. Double a piece of wire in the middle, and twist about two inches.

Let us begin with a leaf. Take the twisted wire between the thumb and fore finger of the left hand for a handle, as it were; fasten to this the ends of a thin strand of smooth hair: (it is well to draw it several times between the thumb and finger to make it glossy.)

Bend the ends of the wire to the right and left; then, holding the end of a knitting needle horizontally over the twist of the wire, pass the strand of hair around the needle, and fasten it by crossing the wires below to the right and left. So continue till you have woven sufficient for the leaf. Slip from the needle, and you have nice loops neatly fastened by a fine wire much resembling gimp. Bend this into the desired shape, twist the ends of the wire, and cover with silk braid as near the color of the hair as possible. The leaves may be made of different sizes, and varied by the size of the knitting needle.

To make daisies, asters, etc., turn this looped wire round and round to present a flat surface; make firm by fine wire underneath.

It is well to have a pattern. If you can not see hair flowers, take natural ones, and by fastening strands of hair to a wire, and binding with floss, endeavor to imitate Nature.

With the pinchers you make your wire fast, and with the whalebone you obtain the desired width of a petal by laying the hair over it. Thus, for a pansy, smooth a short strand of hair, fasten one end to a bit of wire, then pass the hair over the whalebone, winding to the same wire, but lower down; this makes it firm, and enables you to give it what form you like, by bending the wire. Make five of these petals, and set them around a wire having a pearl bead on its end.

Forget-me-not is a pretty little flower, and easy to make; put a gold bead in the middle.

Roses require much time and great care; buds are easily made.

Many persons moisten the hair with oil; but our experience teaches us that the work is much more durable and neater when smoothed by the friction of the fingers.

As it is often necessary to economize the hair as much as possible, it is well to state that as a general rule a piece of hair work is half the length of the hairs which make it. If you have but a scant pattern, use the *short* hairs first, not the shortest, but beginning with those perhaps of five inches in length, and then taking those which are longer.

Practice in this art is of more value than precept. The artist will find the difficulties gradually disappear as the work is persevered in, and to study specimens of hair work, now so common, will assist the learner in many points.

FEATHER FLOWERS.



THOSE who are so fortunate as to have in their possession fine feathers can certainly make fine flowers. Have at hand gum in solution, French paper for winding stems, and wire of different sizes. Draw the under side of the feather gently over the edge of your penknife to bend it in the required direction; make a lump of bookbinder's thick paste or wax on the end of a wire for a stalk, and begin your flower by sticking the smallest sized feathers into it for a center; place other feathers of the same kind, but larger in size, around in order. Choose green feathers for leaves and calyx, and pure white ones for japonicas and white roses. Twist the ends of the same on a wire, and make fast with gum, glue, paste, or other similar adhesive substance. Be careful to select feathers of the same kind for the same flower. Arrange in a vase, and cover to keep free from dust. In this, as in all kinds of fancy work, let taste and neatness govern the process.

It will often be found necessary to color the feathers to give the desired variety of hues; and this can easily be done by attending to the following directions: Put the feathers into hot water, then drain them; rinse two or three times in clear cold water; place them on a tray, over which a cloth has been spread, before a good fire; as they dry, draw them gently into shape between the thumb and finger.

To dye Feathers blue. — Into about three cents' worth of oil of vitriol mix as much of the best indigo in powder; let it stand one

or two days. When wanted for use, shake it well, and into a quart of boiling water put one table-spoonful of the liquid. Stir well, put the feathers in, and let them simmer a few minutes.

Yellow. — Put a table-spoonful of the best turmeric into a quart of boiling water; when well mixed, put in the feathers. More or less turmeric gives different shades.

For *orange*, add a small quantity of soda to the preparation for yellow.

Pink. — Three good pink saucers to a quart of boiling water, with a small quantity of cream of tartar. If a deep color is required, use four saucers. Let the feathers remain in this dye several hours.

Red. — Dissolve a tea-spoonful of cream of tartar in a quart of boiling water; put in one tea-spoonful of prepared cochineal, and then a few drops of muriate of tin. This dye is expensive; therefore use the plumage of the bird ibis.

Lilac. — About two tea-spoonfuls of cudbear in a quart of boiling water; let it simmer a few minutes before you put in the feathers. A small quantity of cream of tartar turns the color from lilac to amethyst.

Bunches of orange blossoms can be made with good success in feathers; the buds are to be made of starch and gum mixed; the stamens of ground rice, colored with turmeric, into which the gummed ends of manilla grass have been dipped.

The "untutored savages" of the Pacific Islands make beautiful feather flowers, rivaling the natural ones in delicacy and beauty. Pinks, orange blossoms, and roses of exquisite workmanship are often brought from these "heathen lands" which would put to the blush our most accomplished artists. Old ostrich feathers can be made to look as well as new by holding over hot steam, then drawing each vane of the feather separately over a knife to curl it.

CONE WORK.



SELECT good clear cones, and dissect some which have handsome, large scales, and brush them clean; lay nice white putty, or a similar adhesive substance, smoothly on your frame; set into this putty whole cones, large and small, in such figures as suit your taste, and fill up the entire groundwork with the scales, lapping one neatly over the other.

Cut oval and round frames for light pictures, from bookbinder's pasteboard, and cover with the scales in layers or rows. Scallop the edges with small whole cones, set in large cones surrounded by little ones equidistant, if the frame be broad, and fill in with the scales. When dry, take out those which are not firm, and replace. Add acorns *ad libitum*. Varnish the whole once or twice. If you wish something nice, go over every part with a fine brush, and leave no varnish standing in drops.

Cones can be found by almost any one in an hour's walk through pine woods. Indeed, if one has a taste for the beautiful, and is quick in perception, it is impossible to ramble through woods and fields without finding many curiosities in the shape of mosses, grasses, cones, etc.

SHELL WORK.



THIS is very pretty for vases, frames, boxes, etc. Many shell flowers, animals, birds, and the like, are brought here from the Mediterranean. We have seen some that we would like to own; but in general they have a stiff appearance. However, we will tell you how they are made.

Assort your shells according to size and color — the more rice and other small shells you have, the better. Melt white wax and glue together, two parts of the former and one of the latter. Have a clear idea of what you intend to do; or, what is better, make a pattern before you begin to set your shells. If you will ornament a box, a rose in the center looks well. Take thin round shells, those most resembling rose leaves, of the smaller size, and dipping the lower ends in the hot wax mixture, set them close together for the center of a rose; place other similar shaped shells around in circles, the largest outward. Care must be taken to form the shells into perfect circles, and to take up wax enough to make them adhere to the cover. Shells of different form, say more oblong, can be used for leaves. After arranging such figures as you like with the shells you have, fill up the spaces with the very small ones. Rice shells are the prettiest, but they are costly. Some prefer sticking the shells into a puttied surface, which does very well. Varnish with a *very little* copal varnish, *using great care.*

Animals are made of thick pasteboard, or turned in wood, and covered with one kind of shell.

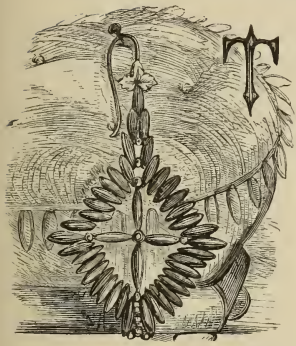
Shell Flowers. — The basis of each large flower is a piece of thick round pasteboard. The shells for petals are sometimes tinged with water color, and the leaves made of green paper. Delicate sprays are made by threading small shells on fine wire. Thus made, with half a dozen huge black berries of wax on the top, in a vase all covered with shells, it will pass for the imported article.

Ornaments for the hair are made from rice shells, thus: File down the conical end of the shell, and clean out the opposite end with a pin; pass a silver wire (a guitar string) through the filed end, bring it down and twist for a stalk. From fifteen to twenty pairs on one branch, neatly covered with white or green silk floss. Two or three such stalks of different lengths are sufficient.

Satin beads wired with a guitar string, and wound in pairs to form sprigs, with now and then a tendril, are beautiful for evening dress.

In almost every family, enough shells, small and appropriate, can be found to make some ornamental article. Sea captains bring home valuable collections; and who among our readers has not some friends or acquaintances who "go down to the sea in ships"?

WILD TAMARIND SEED WORK.



THE wild tamarind seeds are brought into our market from the West Indies. They are about the size and color of apple seeds, but hard as stone. We tried various chemical solutions to soften them, but in vain; finally, we soaked them in air-slaked lime some eight or ten hours, then wiped them with a rag wet in sweet oil. After this process they were soft enough to admit of being pierced by a needle.

Our lady friends used them, with gold and silver beads, for purses, bags, baskets, bracelets, ear-drops, etc. When dried they returned to their pristine hardness, and formed durable and useful ornaments.

Seeds of Cucumber and Musk Melon can be worked with steel beads so as to make handsome dress bags and table ornaments. They should be lined with silk appropriate to the beads; for example, a rich green, cherry color, or black.

A person of taste can make many very pretty things by arranging the seeds and varying the beads. Try it for bags, mats, catchalls, baskets, plates, and table ornaments.

IMITATION PEARL WORK FOR EMBROIDERY.

We do not think that a preparation of fish scales has ever been used in this country instead of the so much admired pearl; and so we give it to our readers, knowing that they will like something entirely new.

Take the shining scales from a carp, or any other fish — the larger the scales, the better; put them in strong salt water over night; lay them on a linen cloth or smooth board; wipe them carefully on both sides, and lay them between clean, strong paper, under a board, on which place a weight; let them remain a day or two, until the scales are pressed dry and become hard. Draw something, say an ivy leaf, on strong drawing paper; cut it out, and lay it on each scale as a pattern by which to cut the scales with very fine scissors. Such a pattern, however, is superfluous to persons acquainted with drawing, who can cut leaves of that kind without one. Vein your scale leaves with a fine steel needle; do it slowly, bearing on hard to give clearness: the leaves are now ready.

Stretch a rich, dark-colored silk velvet tightly in an embroidery frame; place the pattern, which you intend to copy, before you, and imitate it by sewing the scale leaves, one at a time, on the velvet, with fine gold thread, and the leaf stalks and tendrils embroidered with the same. It is well to draw the thread through water before using it, to render it flexible.

The beautiful effect produced by this simple process fully repays one for the trouble. That manifold changes may be made according to the taste and ingenuity of the copyist, is evident to the reader.

PAPER FLOWERS.



OCCASIONALLY we see very handsome paper flowers; but then they are made by persons of taste with great care, and from the best of French tissue paper.

Dip a large camel's hair pencil in thin gum arabic, and brush quickly over the whole surface of the paper from which you intend to cut your flower; this fills the pores of the paper, and gives it a little stiffness.

Cut roses, japonicas, etc., from paper patterns; then paint with water color. Form the petal with your fingers and a pair of scissors. Cut a fringe of yellow paper for stamens. Make your leaves and calyx of green tissue paper, well sized with gum. Cover fine well-annealed wire with green paper for stalks, and fasten the parts of the flower together with gum.

For a daisy, chrysanthemum, or aster, double the paper two or three times; cut down two thirds; roll the uncut side firmly round and round the bent end of a piece of wire suitable for the stalk.

Buds, pericarps, etc., are made either by stuffing with a bit of cotton, or winding up paper.

Variegated pinks look well. Paint strips of paper in splashes here and there, as you see on the petal of the carnation — some very dark carmine, some merely light touches. Cut off suitable width for petals, and wind around a paper center. Take natural flowers for models.

Potichomanie.



THIS style of imitating the Chinese, Porcelain, Sevres, Japanese, and other kinds of vases, is quite simple, and if the following directions are closely adhered to, no difficulty will present itself.

Choose such a glass vase as will be adapted to the style you mean to imitate, which can be readily obtained, with the materials described, of the publishers of this book. With fine-pointed scissors, cut the paper close to the figures you use, which may be flowers, birds, or Chinese figures of bright colors, which are imported in variety for this purpose. After you have cut out what you need, and have determined their arrangement, gum them

on the face several times, until they are damped through and softened, letting them remain until the gum thickens a little; then press them closely to the glass till every spot adheres, for otherwise white spots will appear, which disfigure the work. Many use Antique varnish now instead of gum, applying as in the instructions for that style of work; though more difficult, it is a far better method, both as it is likely to be more durable, and also more beautiful. When the figures all adhere, and are dry, apply gently to the back, and on the edges of the work, a thin coat of gum. This will stop all varnish or paint from running between the figures and glass. Again, when it is dry, varnish over with Antique varnish; or with Mastic or Outside varnish, only, if you use either of the latter, varnish only where you last gummed. After this is dry, paint the inside over with the ground color, which should be always a pale tint, greenish white, bluish white, slight rose white, or, what contrasts better with the figures generally used, a pale yellow, or pine color slightly brown.

Another way of making a beautiful style is, to take the common kind of potter's ware, and gum the figures on the outside instead of inside; then gum the face and varnish, and afterward paint between the figures the ground you wish, with a small pencil, generally reddish brown, dark blue, etc. These colors may be mixed with oil, varnish, or enameled; the best material readily obtained is fine zinc paint, tinted, and mixed with Outside varnish. The tints may be made by mixing the Oriental colors spoken of in directions to that style.

This art of ornamenting glass originated in France; and from the easy method of gaining a beautiful effect, soon became a favorite source of employment for those who had leisure time, and a profitable art to those who made a business of it. By it, glass vases appear like richly painted porcelain, so much so, that, when

carefully done, it would deceive any but the initiated. The process is perfectly simple, and has one thing to recommend it strongly to those who can only work in "*snatches,*" as it can be put down and taken up at any moment without injury. By observing the following directions closely, no difficulty will be found by the most ordinary manipulator.

1st. Select the pictures, either in sheets or otherwise; go over the back with a strong coating of isinglass, taking care to cover every part.

2d. When they are dry, select those wanted for use, and cut them out carefully, so as to have them in good shape and no paper seen.

3d. When you have as many as you want, arrange them on the table, in the order you wish to have them on the vase, numbering them, if requisite, on the back to prevent any mistake when placing them on the vase.

4th. See that the vase is perfectly clean, and free from spot or stain; wet the front side of your pictures with gum tragacanth or gum arabic, and press them carefully with the flat of the nail against the inner side of the vase.

5th. When all is completed, and the vase submitted to a close scrutiny, to ascertain whether all the pictures keep their places, and whether there are any finger marks to remove, — if every thing is satisfactory, then mix your tint for grounding; it is better to mix up as much as will coat the entire over twice, so as to have it solid.

6th. When the color is thoroughly mixed, apply it with a soft camel's hair brush, (a one inch flat camel's hair is the best,) beginning at the bottom, and working carefully so as to cover every part equally.

7th. Allow a day or two to intervene, then coat it over again, so as to make it perfectly solid.

These we consider quite sufficient directions to work from.

In the fourth direction, two gums are named. We prefer using gum tragacanth, and would strongly recommend the manipulator to be exceedingly careful in the process of sticking the figures on; to be sure that the edges are securely fastened; to look at them occasionally afterward, and if any little corner is found raised up, pertinaciously to insist upon its being fast down before leaving it. We dwell upon this, and make an important point of it, because so much depends upon it — whether your work is good and perfect in shape, or blotched and deformed with paint, as the least rising up of the picture makes an entrance for the coating paint to flow in.

The reason we recommend the coating of isinglass on the back of the picture is, some paper is not sufficiently compact to resist the effect of oil paint, but with a coating of isinglass the picture is sure to retain its beauty. The isinglass should be put on warm. A few of the best delicate tints for coating are as follows: *Pearl* — white with very little black; *Buff* — white lead or zinc white with a little deep chrome; *Pale Blue* — white or zinc white with a little ultramarine; *Salmon* — white or zinc white with a trifle mineral red; *Fawn* — white or zinc white tinted with burnt sienna; *Pea Green*, Emerald Green — white and a very little pale chrome; *Chocolate* — Indian red and Vandyke brown; *Pink* — white and pink madder; *Red Pink* — white and a little vermilion. Any of these colors can be procured at paint shops, or of the publishers of this book, in packages to suit, mixed in their usual way, with oil and turpentine, same as regular house painting, (inside nice work.) For *pink*, we would recommend tube paints of Win-

sor and Newton, flake white, and rose or pink madder, thinned with turpentine.

Ground Glass Imitation. — A good imitation of ground glass can be made by coating the vase thinly over with white and dabbing it with a delicate piece of chamois leather rolled up into a small ball.

Imitation of Alabaster. — Alabaster can be imitated in the same way, only coating the vase a little thicker with the paint.

TO MAKE TRANSPARENCIES.

TAKE some prettily colored landscape, and cut a slit into the broad lights of it with a penknife; put a white paper of medium thickness behind it, and interline with orange or rose-colored paper; bind the three — that is, the landscape, the colored paper, and the paper which forms the back — together with some suitable color for a frame; now separate the cut edges of your landscape by pressing them apart. Hang up in the window, and when the sun shines through, the effect is beautiful. Try it; we are sure you will be pleased.

An engraving prepared as for Grecian painting is very pretty for a screen, or to hang in the window. Lamp shades may be made in this way, and many pretty designs will suggest themselves; bouquets, wreaths, vines, running round the shade, etc. Also still more beautiful is the antique style, before painting.

DIRECTIONS FOR TAKING LEAF IMPRESSIONS.

FOLD oiled paper in the smoke of a lamp, or of pitch, until it becomes coated with the smoke; to this paper apply the leaf of which you wish an impression, having previously warmed it between your hands, that it may be pliable; place the lower surface of the leaf upon the blackened surface of the oiled paper, that the numerous veins that are so prominent on this side may receive from the paper a portion of the smoke; lay a paper over the leaf, and then press it gently upon the smoked paper, with the fingers or with a small roller, (covered with woolen cloth, or some like soft material,) so that every part of the leaf may come in contact with the sooted oil paper. A coating of the smoke will adhere to the leaf. Then remove the leaf carefully, and place the blackened surface on a piece of white paper, not ruled, or in a book prepared for the purpose, covering the leaf with a clean slip of paper, and pressing upon it with the fingers or roller, as before. Thus may be obtained the impression of a leaf, showing the perfect outlines, together with an accurate exhibition of the veins which extend in every direction through it, more correctly than the finest drawing. And this process is so simple, and the materials so easily obtained, that any person, with a little practice to enable him to apply the right quantity of smoke to the oil paper and give the leaf a proper pressure, can prepare beautiful leaf impressions, such as a naturalist would be proud to possess.

Specimens thus prepared can be neatly preserved in a book form, interleaving the impressions with tissue paper.

TO DRY BOTANICAL SPECIMENS FOR PRESERVATION.

THE plants you wish to preserve should be gathered when the weather is dry; and after placing the ends in water, let them remain in a cool place till the next day. When about to be submitted to the process of drying, place each plant between several sheets of blotting paper, and iron it with a large smooth heater pretty strongly warmed, till all the moisture is dissipated. Colors may thus be fixed which otherwise become pale or nearly white.

Some plants require more moderate heat than others, and herein consists the nicety of the experiment; but I have generally found, that if the iron be not too hot, and is passed rapidly, yet carefully, over the surface of the blotting paper, it answers the purpose equally well with plants of almost every variety of hue and thickness. In compound flowers, with those also of a stubborn and solid form, some little care and skill are required in cutting away the under part, by which means the profile and forms of the flowers will be more distinctly exhibited. This is especially necessary when the method employed by Major Velley is adopted, viz., to fix the flowers and fruit down securely with gum upon the paper, previous to ironing, by which means they become almost incorporated with the surface. When this very delicate process is attempted, blotting paper should be laid under every part excepting the blossoms, in order to prevent staining the white paper. Great care must be taken to keep preserved specimens in a dry place, and also to handle them gently; and thus they can be kept a long time, affording a source of great pleasure.

The Aquarium.

THE AQUARIUM.

IN giving some simple directions for making aquaria, we believe that we are performing an acceptable service to our readers; for within comparatively a short time the aquarium has become a popular source of entertainment and instruction, and by means of it a fresh impetus has been given to the study of the wonders of the ocean depths. No more attractive object can be found, than a well-stocked aquarium, with its living curiosities of animal and vegetable life, nor one so continually changing in its character — ever varying, ever new. We give a few simple directions to assist the reader, although the subject is not strictly within the scope of our volume. But we have frequently been inquired of relative to the mode of constructing an aquarium, and think our readers will be gratified to find a few simple rules within their reach.

The first requisite is a tank, which can be of any

shape to suit the maker's fancy and his facilities for construction. The square or oblong forms are generally preferred, being easier of manufacture, although octagons, or other angular forms, are readily made. Great care must be taken that the tank is perfectly water-tight; and this is one of the chief difficulties to be encountered. Of course, simple tanks can be made of glass tumblers, china bowls, etc., but we are speaking of those on a more extensive scale. The tank is, in few words, a water-tight box with glass sides and a slate or marble bottom. A cabinet maker, or any ingenious person, can easily make one by constructing the skeleton of a box, or the frame of a box, and fitting glass sides into solid grooves in the frame. Also have a glass slab for a cover, raising it a little from the top of the tank by placing bits of cork upon the edges, in order that air may pass over the water. The dimensions can be decided according to taste or convenience. The following are found to be very available sizes: —

18 inches long, 13 inches wide, and 13 inches high.
30 " " 18 " " " 18 " "
48 " " 24 " " " 24 " "

Having completed the tank, the next, and perhaps more difficult step, is to fit it up, or "stock it;" and

here is a field for the display of taste and beauty. Of course, this process depends upon whether the tank is for a salt or fresh water aquarium — the tank itself being the same for both. In a small aquarium it is not best to fill up the tank with rock-work, as all the space thus occupied diminishes to that extent the room for the animal and vegetable life. Before fitting up the tank, it should be well soaked for two or three days, to remove any loose particles and all scent and foul matter from the cement used in fastening the glass sides, as any such impurities will destroy all the animal life contained in the tank. Cover the bottom of the tank evenly to the depth of one or two inches (the depth is not essential) with coarse sand, pebbles, small shells, etc., washed clean. In this layer the aquatic animals will delight to amuse themselves. Next, place stones and rocks of different sizes in the tank, piling or adjusting them so that open spaces will be left between the stones, corresponding to the caverns and hiding places in the beds of brooks and on the bottom of the ocean. Allow one piece of rock to project above the surface of the water, so that such of the animals as desire can crawl up and breathe atmospheric air. The tank should be filled perhaps two thirds full of

water, and the hight marked on the side of the tank. As the water evaporates, fill up with fresh water to this mark. If the aquarium is for salt water, the filling up to compensate for evaporation should be done with *fresh* water, (not *sea* water,) as the salt remains in the tank after the evaporation. The water should be occasionally supplied with fresh air, by means of a syringe, and changed from time to time during the first week, or until the plants and animals seem to thrive naturally.

The aquarium should be stocked with the vegetable life *first*, and the plants should be suffered to remain a week or more before any animals are introduced, as some plants may die, and dead leaves and sticks may accumulate. These should be removed as soon as seen.

In a marine aquarium, branches of coral make a very pretty ornament to the interior arrangement. An excursion on the sea shore will supply a variety of plants, etc., with which to stock the tank. Make your exploring expedition when the tide is out, supplied with a basket, hammer, chisel, etc. Turn over large stones, and underneath them you will generally find excellent specimens. Search in the fissures of the rocks, pools, and basins, and find marine plants. If possible, do not detach them

from the rock, but cut away the piece to which they are attached, and bring the whole away; the plant is more likely to live in this way. If it is a delicate plant, place it in a jar and cover it with water, or it will soon die by exposure. In these excursions, you will find mollusca, univalves, bivalves, barnacles, etc. Sea anemones will be found adhering to the rocks; star-fish, curious specimens of the crab, and others, will be found under loose stones at the lowest tide level.

The knowledge of a practical naturalist would be of great assistance in fitting up the aquarium, as his practiced eye would detect many beautiful specimens which might wholly escape the notice of those unskilled in natural history. The water for a marine aquarium should of course be from the sea.

The fitting up of a fresh water aquarium is easily done. We subjoin the names of a few plants, simply to specify those most desirable: —

Forget-me-not,
Ferns,
Water Violet,
Common Rushes,
Common Dock,
Duck Weed,
White Water Lily,
Yellow Water Lily,
Water Cress,
Tape Grass,
Sweet Flag,
Golden Club,
Water Lobelia,

and many others which are familiar to the reader. Most of these are common to our brooks and ponds. In placing plants in the tank which require fixedness of roots, it is well first to inclose the roots in a ball of wet clay.

Pond snails are easily procured, and are an important accession, as they consume decayed or decaying vegetation, and in fact act as natural scavengers. Care must be exercised to have neither too strong nor too feeble a light. The fresh water muscle, and all the genera and species which abound in ponds and creeks, are suitable for the aquarium, and the same may be said of the fishes. The spawn of the mollusca furnishes some food for the fish; but they should be fed daily, not with bread, but with red worms cut up small, and occasionally with millet seeds. Pieces of dried beef, in minute fragments, will answer as a substitute for worms. All impurities should be removed from the tank, to prevent an unpleasant odor, and to preserve the life of the animals.

From the hints thus given enough can be gleaned to enable any one to attempt to make an aquarium with a good prospect of success. An examination of one well arranged would be of great advantage in giving correct ideas of the construction and arrangement.

Miscellaneous Receipts.

TRACING PAPER.

GET a sheet of fine tissue paper, and rub it all over thinly with clarified linseed oil, when it will be quite transparent; hang it up to dry; it takes some time to dry, but it must be allowed to dry thoroughly before using it, or it may spoil the picture or engraving you trace from. With this kind of tracing paper, being transparent, you have merely to place it over pictures or engravings, and with a lead pencil mark over your drawing with a steady hand.

SPIRIT SANDARAC VARNISH.

Six ounces of pulverized sandarac, two ounces of pulverized shellac, four ounces of pulverized resin, four of turpentine, thirty-two ounces of alcohol; let the vessel you make it in be surrounded with warm water, gradually made hot; when all the gums are dissolved, strain, and in a few days it will be ready for use. Good for varnishing any thing that is wanted to dry quickly.

TRANSFER VARNISH.

To six ounces of fir balsam add twelve of rectified spirits of turpentine; shake well together; strain if requisite, and it is ready for use. Good for transferring engravings, and holds the ink firmly; is sometimes used for varnishing maps, engravings, etc.

MASTIC VARNISH.

Dissolve (without heat) six ounces of bruised mastic in twelve ounces of rectified spirits of turpentine; when dissolved, strain it into another bottle, cork it, and place it where the sun will strike. After a time there will be a precipitate; then put it in another bottle clear. This is a good varnish for maps and engravings.

Another. — Six ounces of 95 per cent. alcohol; six ounces of mastic; fourteen of turpentine. Likewise good for engravings, maps, etc.

HOW TO MAKE TRANSFER PAPER.

Take any opaque color, and mix it with a very weak solution of gum water. The opaque colors best for this purpose are Indian red, yellow ocher, chrome yellow, and white. When mixed, coat it over thin drawing paper, with a flat brush; when dry, it is ready for use. It is very serviceable to transfer your sketch made on the tracing paper; for oil pictures, for instance, when you have made your sketch on the transparent tracing paper, place your transfer paper, the color side to face the canvas, fit on your trace, and mark all your drawing with a bone tracer, or with the point of your sharpened pencil stick, when a very legible outline will be transferred to the canvas, of whatever color your transfer paper is. Of course you will choose a color that will show; chrome or yellow ocher shows quite sufficiently on light-colored canvas. After removing your paper, it is well to mark over on your canvas with lead pencil.

In making the transfer paper, be careful not to put too much gum in, or the color will not leave so freely as is requisite for tracing.

ANTIQUE VARNISH.

This receipt has never before been given, although large sums have repeatedly been offered for the secret. All other receipts are worthless, and no other preparation will stand the test of time, as this has done.

Take one ounce of pure Venice turpentine; mix well with two ounces of pure spirits of turpentine; warm in a large bottle. In another bottle put four ounces of best fir balsam, (*it must be pure,*) with two ounces of 95 per cent. alcohol; shake well each bottle frequently for six hours or more, then mix both preparations in the large bottle. The whole should stand several days before using, in a warm place.

CABINET VARNISH.

To one gallon of alcohol add six ounces of gum sandarac, three ounces of gum mastic, one half ounce turpentine varnish; put all in a tin can, and in a warm place, occasionally shaking. Twelve days or so will dissolve the gums. Strain, and it is ready for use. This varnish is good for any sort of wood work, violins, etc.

TURPENTINE VARNISH.

To one gallon of oil of turpentine add five pounds of powdered resin; boil for thirty minutes; strain it; when cold, it is fit for use.

PAPIER MACHE VARNISH FOR PEARLING.

Take one quart of the spirit sandarac varnish, mix in three ounces of lampblack, and one ounce of Prussian blue; blend them together, and it is ready for use.

TO VARNISH COLORED ENGRAVINGS, CHARTS, MAPS, ETC.

Make a frame stiff and strong, similar to those used for canvas in oil painting, except it better be secured at the corners. Then procure cotton cloth two inches larger than the frame all round; this paste well on one side with strong binder's paste; also paste the picture or map, which should lay a few minutes to become moist throughout, and place the pasted sides together, (the cloth and paper,) and rub with a bone folder, commencing at the middle, out to the corners, that it may not wrinkle. The assistance of a second person would be desirable to hold up the corners until you are prepared to smooth as directed. Before this is dry, tack with lace tacks to the frame evenly; when it dries it will become very tight and smooth.

After the whole is thoroughly dry, take a piece of isinglass, say three inches square, break in small pieces and pour on hot water, about a small cup full, and keep it hot till the isinglass is all dissolved, and while the solution is warm, with a flat camel's hair brush, coat the face of your picture evenly, avoiding as far as possible touching a second time (particularly if it is colored) till the first is dry. Be sure that every part has received a portion of the size. When dry varnish with Outside, or Mastic varnish.

RECEIPT FOR MAKING GOLD SIZE.

Take one pint of boiled oil, and three quarters of a pound of litharge; boil them together for three hours, occasionally stirring it up; when cold, let it settle for a few days, pour off the clear liquid, and it is ready for use.

TO STRETCH ENGRAVINGS FOR FRAMING.

Prepare them as already directed. Pictures much soiled may be washed in clean water, and with blotting or other porous paper the superfluous water absorbs the dirt; they may be then stretched, and be made to look as smooth and fresh as new.

TO CLEANSE CABINET WORK.

An excellent method is, in the first place, to saturate the surface with pure olive oil, and then apply a solution made by dissolving gum arabic in boiling alcohol. This will give to the furniture a most brilliant appearance.

Another mode is to dissolve a pound and a half of potash in a gallon of hot water; then add a pound of virgin wax, and after boiling it for half an hour, allow it to cool, and the wax will rise to the surface. Put the wax into a mortar, and work it with a marble pestle, adding soft water until it becomes of the consistency of soft paste. Lay this on the furniture, and rub it carefully, when dry, with a woolen rag, and a beautiful brilliancy is soon obtained.

NEWTON'S

Prepared Colors for Painting Photographs.

HOW TO USE THEM.



WE WILL first mention that there are other preparations offered for sale, said to be as good as "*Newton's Colors.*" The artist must avoid these imitations, which, though they may color a picture, also injure it, and are as much inferior to the genuine article, as the cheap toy paints made for children are to the true artists' colors. Insist upon being supplied with the genuine Newton's colors.

The peculiar properties of these paints are such, that *any* person can use them, and with good effect; but a few hints from one who has had experience may be of service to the artist who would produce a perfectly finished picture.

The colors must be greatly reduced with the liquid, and used sparingly; a thick piece of blotting paper is very useful in absorbing the superfluous color before touching the picture. We would enforce this strongly upon the mind of a beginner, that the colors must be diluted, and that the brush must be moist with color only, and not full of the color, so as to spread over parts not intended to be touched; repeated touches over the same place will produce the brilliant effect much better than to use the color strong and full. Again, the color should be put on only over the darker shades of the picture, barely tinting, or preserving wholly free from color, the lights and brilliant spots. If you would have a dress blue, do not paint of one shade every part of the dress, but in the folds first touch several times; then over the lighter portions use weaker shades of the same color, or perhaps of delicate purple and violet, and flesh color, leaving white places, which may be increased in brilliancy by the use of Newton's Opaque Colors, recently introduced by Messrs. J. E. Tilton & Co., who are the exclusive agents for these paints in the United States. We shall treat of the opaque colors in connection with the transparent colors.

We will now speak of the Flesh color, which is perhaps the most difficult to produce, and the most important to have well done. It is impossible to prepare a shade that will answer for all parts and uses, — a blonde and brunette, a clear pink complexion, and the warm and creamy color more

common. Yet the shade called *Flesh*, of Newton's colors, is good, and may be used in most cases without any, or with little change. We have succeeded, if a pink complexion is wanted; and by diluting Carmine No. 2 very much, used as follows: Clean the brush very thoroughly by dipping it in Reducing Liquid, and wiping it with a soft rag then wet well with the diluted carmine, and after drawing across the blotting paper several times, touch lightly the shades of the face, and other parts of the flesh under the eye, about the muscles, &c.; the darker parts more than once, particularly about the cheek and chin; then, if a warmer tint is to be produced, use over this the flesh color, prepared in the box; or delicate yellow, diluted with Reducing Liquid, barely to tint; or brown, treated in the same way, if for brunette. Again, clean thoroughly the brush, and immerse in the Reducing Liquid; absorb the superfluous moisture with the blotting paper, and go over the whole, blending all, and giving fine effect. Touch the lips very carefully with a darker shade of Carmine No. 2. Should the card be imperfect, and the flesh spotted, or should you wish to make a more finished and perfect picture, use the bottle of opaque white, with small sable hair brush, on the light parts only; if desirable, tint with opaque carmine quite delicately. The lips may be finished in the same way, using more carmine, the same care here to be observed to touch on the lighter parts only.

We will next speak of the HAIR. The same general rules

must here be observed. Touch only the darker parts with transparent colors, and only light parts with opaque. Whatever the color of the hair is to be, we usually begin with Brown No. 2, reduced; touch on the shades only, the brush being slightly moistened; afterwards use yellow, well reduced, and very sparingly for blondes, or well-reduced blue for dark and black hair, preserving the lights mostly untouched, or but slightly tinted with the flesh color. This can also be improved with opaque browns, ochres, &c.

The Dress. Here, again, we must repeat the same rules. Use the color you would make it, reduced, on the folds and darker parts only, repeated coats or applications to make the intensity rather than the full strength of the color, and the effect is better to use more than one color, crossing and blending lightly. Thus, if you would have it red, use Carmine No. 2; after, pale yellow and flesh tints, and perhaps delicate tints of brown, crossing and blending, though the carmine must predominate; touch carefully, and complete with opaque red on light places. These directions will apply to all drapery, and the more delicate the color and touches, the more tasteful and beautiful will be the picture. To use one color evenly over the whole will produce a flat picture, without effect. Gold ornaments should be painted with a delicate shade of straw (yellow much reduced), and touched slightly with opaque white on the lighter parts. White drapery, pearls, &c., may be much improved by touching on the white places with

opaque white. These few touches on the prominent parts of the picture lend good effect, and much enhance the beauty of the whole.

Furniture. Use brown, and scarlet, and yellow, one after the other, blended; touch on the lights with opaque colors very slightly.

Should there be foliage in the picture, use first light shades of yellow near the sky and lighter parts, afterwards with brighter yellow the darker shades; then use green over the yellow, and also blend in shades of Carmine No. 2, and scarlet and brown. This gives a warm and varied color, much more natural and effective than if the one shade of green were used. Be careful to use reduced colors, particularly on the lighter parts. Flowers may be touched carefully with the fine point of the brush dipped in the opaque colors, but trees and general foliage will look better to use only the transparent colors.

The sky may be made with *faintest* tints of blue, pink, flesh, and straw, properly blended; the top of the picture and darker parts blue only, and horizon straw, flesh, and pink. This is the nicest part of the picture to do, and should be done carefully, with transparent colors only. Water should partake of the same tints as the sky. The grass and shrubbery may be treated with the same colors as the trees, differently blended. The ground should have more red and brown, blended with green and straw. Distant hills and foliage must be very faint and delicate.

Always select in the foreground some prominent and appropriate object to lay on bright colors, both transparent and opaque — the head-dress, ribbons, a bird, some flowers, or other object; this gives brilliancy and effect to the whole. Animals should be painted with various shades of colors; same rules must be observed in the lights and shades, the whole of which should be kept quite faint and delicate, touching sometimes, if *quite* light, with the opaque colors. Careless touches of the transparent colors may be skilfully colored with the proper shades of opaque colors, and thus the picture, supposed to be injured or spoiled, may be recovered and improved.

In some of the fancy pictures or copies of engravings, we have representations of angels; these must be very delicately tinted with flesh color and straw, pearly shades of blue and violet blended; lighter parts and haloes the most delicate straw, the Reducing Liquid scarcely tinted.

Natural Flowers. Messrs. Tilton & Co., the publishers of this treatise, have succeeded in photographing some natural flowers, in card form, which look beautifully colored with these paints, while they are also invaluable as copies in water colors, oil, and pencil. These must be tinted very delicately with reduced transparent colors; afterwards retouched several times with the same on the shades; the lightest parts may remain untouched or tinted in the faintest possible manner with transparent paints.

The colors to be used will suggest themselves on seeing the picture. The leaves should be treated as foliage, described above. These are very quickly and easily done, and really look delightfully natural.

How to clean Brushes. Those used for transparent colors may be cleaned in a small cup of alcohol, but they must be wiped quite dry with a rag; and be careful not to get the alcohol mixed with your paints. One or two brushes for each set of colors is sufficient.

The proper Brushes. For transparent colors use the best camel-hair pencils, fixed in long handles, with German silver tips; and for opaque colors, sable hair pencils, in quill or German silver, also with long handles. Clean the brushes used with opaque colors in water, instead of alcohol, and wipe with a soft cotton rag.



CONCLUDING REMARKS.



BEFORE closing this work, the publishers would mention that they have issued several new and beautiful designs, that will be pleasing to those interested. One, a new and elegant picture, from the late popular book, "The Rectory of Moreland." It is a charming work; the sweet face of a young girl, called "The Rector's Ward," one of the most attractive of all their issues, aside from the interest given by reading the book. It was designed by C. A. Barry, and drawn upon stone by L. Grozelier, two well-known artists. Price $1; size 20 x 25 in. Another — or rather a pair — are, one from Whittier, "The Barefoot Boy," and the other from Miss Hannah F. Gould, "Little Match Girl, — Mary Dow." These are designed by C. Swain, and engraved by Grozelier, and are considered perfect *Gems of Art.* They will please the most fastidious.